

BRITISH MEDICAL ASSOCIATION.

Seventy-Eighth Annual Meeting.



GUIDE BOOK.

LONDON

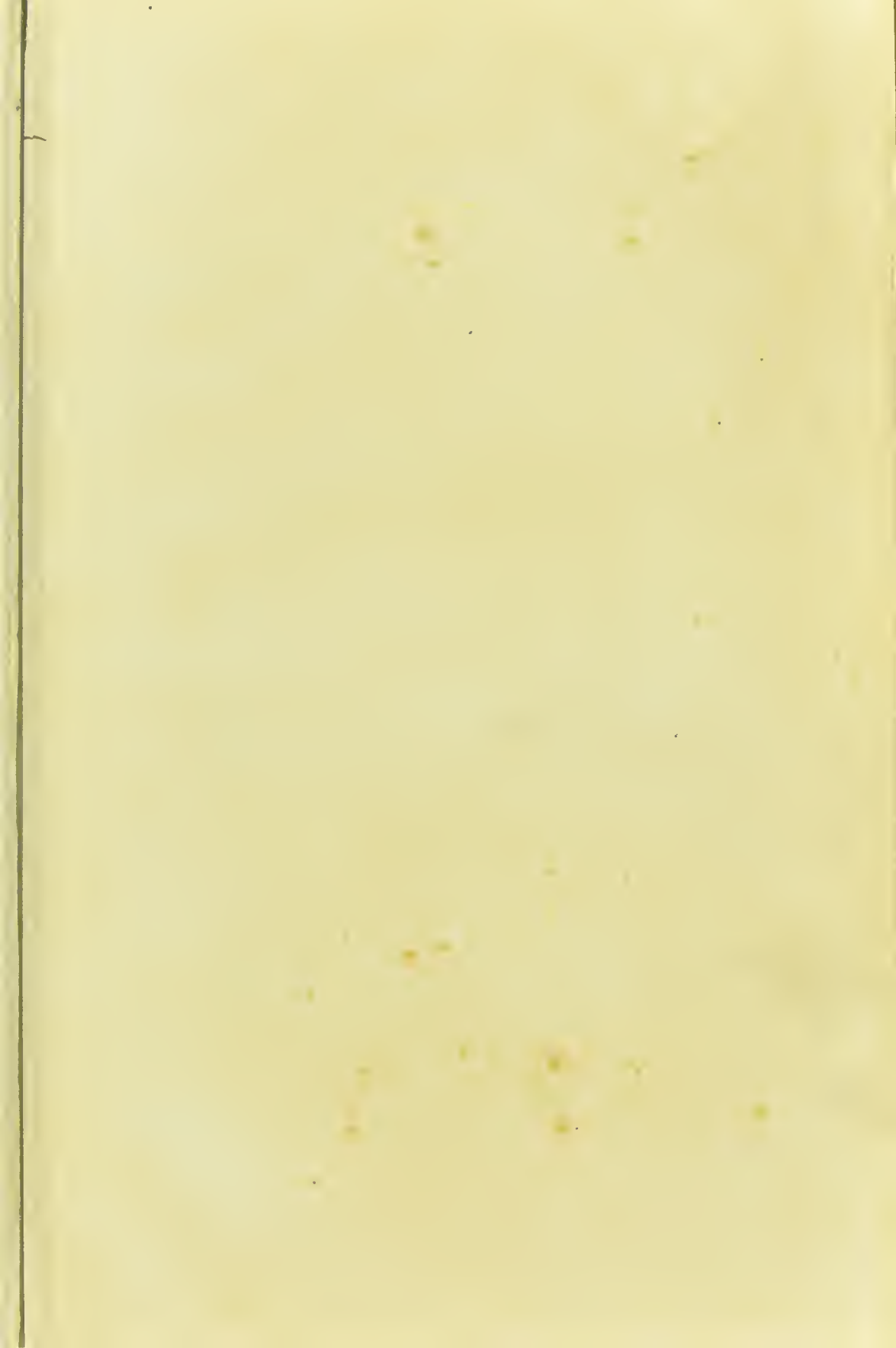
July, 1910.

SL

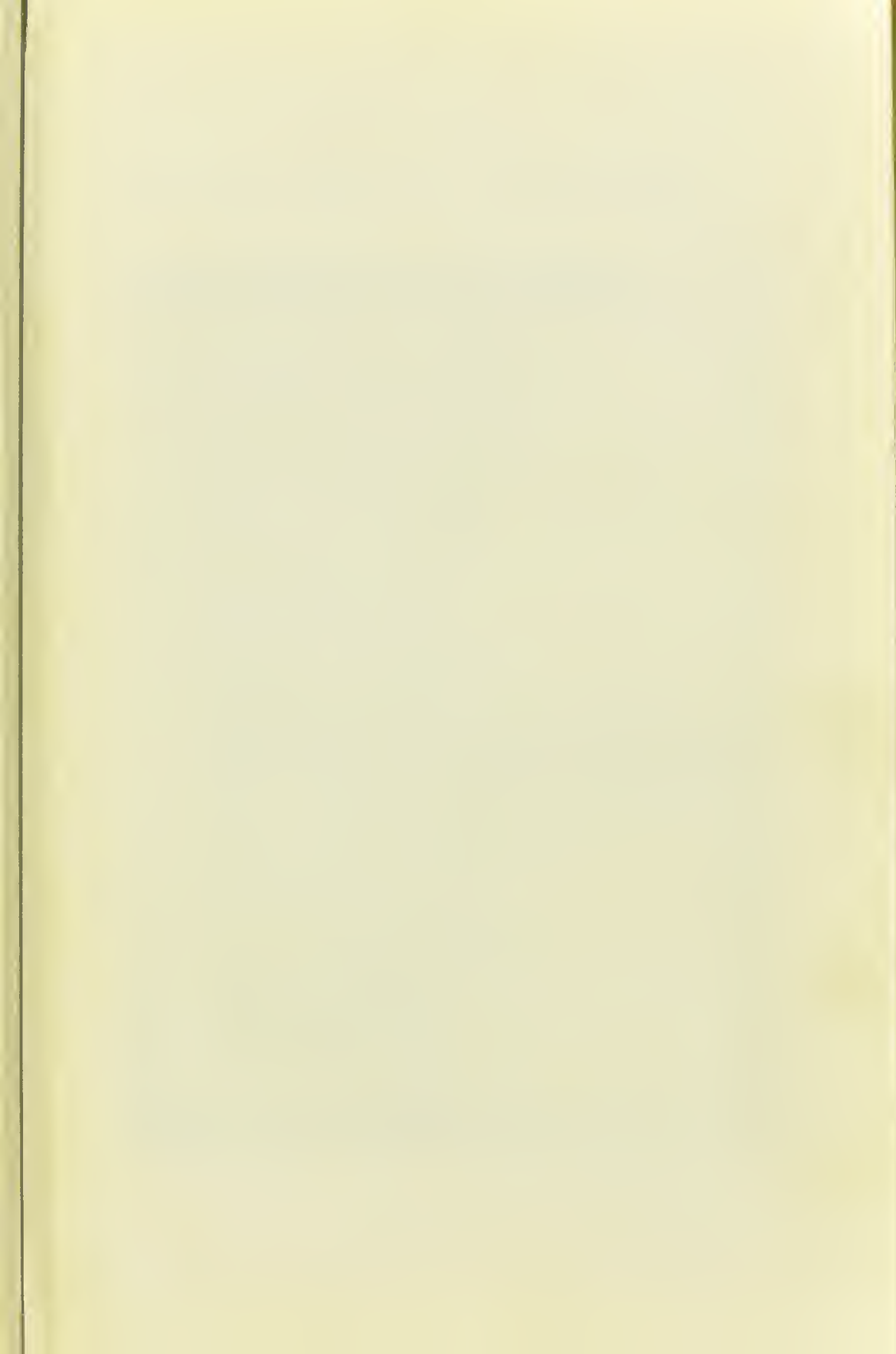
61(421)

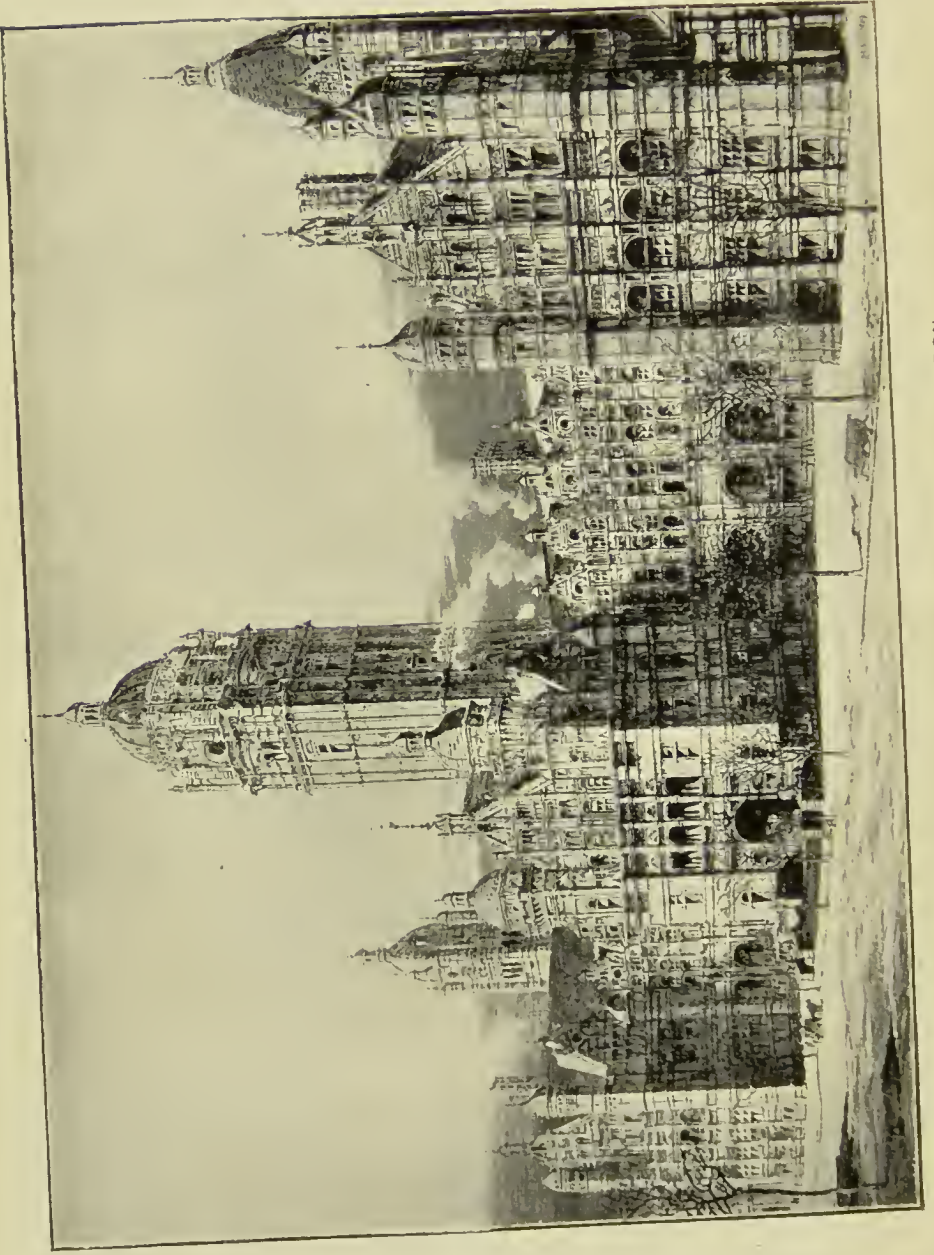


SWW









IMPERIAL INSTITUTE AND UNIVERSITY OF LONDON.

British Medical Association.

SEVENTY-EIGHTH ANNUAL MEETING.



GUIDE BOOK.

LONDON.

July, 1910.

SL

ROYAL COLLEGE OF PHYSICIANS	
LIST 19	
CLASS	61(421)
ACGN.	26802
SOURCE	RD Gurney 98/-
DATE	2.2.62

TABLE OF CONTENTS

	PAGE
INTRODUCTION	7
Regulation of Medical Practice ..	7
Royal College of Physicians of London ..	11
Royal College of Surgeons of England ..	12
Society of Apothecaries of London ...	13
University of London	14
Medical Schools and Hospitals	16
Medical Education of Women	23
Post-graduate Schools	24
Special Hospitals	25
Foreign Hospitals	26
Mental Hospitals and Asylums	26
Fever Hospitals	27
Poor Law Infirmaries	28
London School of Tropical Medicine ...	28
Royal Army Medical College	29
Institutes for Research	30
The Physic Garden, Chelsea	30
Societies	31
Museums and Libraries	32
The British Medical Association	32
Presidential Badge	34
MEANS OF GETTING ABOUT	35
THE UNIVERSITY OF LONDON AND IMPERIAL COLLEGE ...	39
PRINCIPAL MUSEUMS—	
British Museum	39
British Museum of Natural History	40
Museum of the Royal College of Surgeons	43
The Museums of the Hospitals and Medical Schools	48 to 58
Museum of Practical Geology	58
Royal United Service Museum ..	59
Parkes Museum	59
MEDICAL MUSEUM OF THE ANNUAL MEETING	59
BOTANIC AND ZOOLOGICAL GARDENS... ..	62
PICTURE AND FINE ART GALLERIES... ..	63
PUBLIC BUILDINGS	65
PALACES	68
CATHEDRALS, ABBEYS AND CHURCHES	72
LONDON DOCKS	79
CAB FARES	80
INDEX	89
UNDERGROUND TUBE MAP	<i>Back fly leaf</i>

ILLUSTRATIONS.

	PAGE
IMPERIAL INSTITUTE	<i>Frontispiece</i>
OFFICES OF THE BRITISH MEDICAL ASSOCIATION	33
PRESIDENTIAL BADGE	<i>Facing page</i> 34
SKETCH PLAN OF OMNIBUS ROUTES	37
SIR HANS SLOANE, M.D.	41
PLAN OF THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS...	45
JOHN HUNTER	47

INTRODUCTION.

The last time the British Medical Association held its Annual Meeting in London was in 1895. During the fifteen years that have since elapsed, many changes have occurred in the medical world of the metropolis. Some of these changes are the result of new developments of medical science; others may be described as new channels made for itself by what Matthew Arnold would have called the "stream of tendency" in medical thought, endeavour and aspiration. In the domain of science the expansion has mainly been in the direction of larger provision for practical work in laboratories, physiological, pathological, and clinical; the whole apparatus of teaching and research has been enormously increased. The discovery of new methods of treatment has made necessary the creation of new departments, each with a special installation. Some of the general hospitals have been rebuilt, others have been enlarged. Arrangements have been made for the removal of one to a different site. Some new general hospitals have been founded, and a few special ones have been amalgamated.

Museums and libraries have been enriched. Changes of considerable importance have also been made in the constitution of the Royal Colleges and the University of London. Most of the medical societies have been united into one body. In the field of professional organisation, the most far-reaching change has been the reconstitution of the British Medical Association, which has already enabled it largely to extend the sphere of its activities, and which holds in it large possibilities of ever-increasing usefulness.

It is impossible within the space here available to give anything like a full account of the changes that have occurred in the interval between 1895 and 1910. Only the most important of them, therefore, will be mentioned. A brief sketch of the historical evolution of the medical institutions of London may help the visitor to understand the existing state of things.

REGULATION OF MEDICAL PRACTICE.

There is no evidence as to the state of medicine in England before the introduction of Latin Christianity by Augustine, at the end of the Sixth Century.* There were Anglo-Saxon leeches before the Conquest, and the Normans brought with them larger stores of book learning, though not greater practical skill. The history of the medical profession in this and other countries during the later Middle Ages down nearly to the nineteenth century is in great measure a record of the strife among physicians, surgeons, barbers and apothecaries, each body striving to assert and enforce against the others the privileges which it claimed for itself. For three centuries after the Conquest there is no trace of anything in the nature of laws for the regulation of medical practice, or of guilds of professors of the healing art for the protection of the craft. There is mention of a Barbers' confraternity in the City of London as early as 1308, and that some kind of control was exercised may be gathered from the fact chronicled in the City Records that in 1354 an official inquiry was held into a charge of malpraxis against a surgeon. The case was one of "a certain enormous and horrible hurt on the right side of the jaw of Thomas de Shene appearing; whether or not such injury was curable at the time when John le Spicer, of Cornhulle took the said Thomas under his care to heal the wound aforesaid. Who say upon their oath that if the aforesaid John le Spicer, at the time when he took the said Thomas under his care, had been an expert in his craft or art, or had called in counsel and assistance to his aid, he might have cured the injury aforesaid; and they further say that through want of skill on the part of the said John le Spicer the said injury under his care became apparently incurable.† The first distinct reference to surgeons as a body of persons practising a trade for which they required to be licensed by the authorities of the City of London occurs about the middle of the fourteenth century. Master Surgeons had to appear before the Court of Aldermen and take oath to "deserve well and truly of the people in doing their cures, to take from them reasonable payment, and truly to practice their craft, and to report as often as need be to the Mayor and Aldermen the faults of those who undertook cures. To take charge of the hurt or wounded, and to give true information to the officers of the City about such persons, whether they be in danger of death or not, etc., and to act uprightly in all other things belonging to their calling." Medical practice by women was evidently common.

* J. F. Payne: "The Fitzpatrick Lectures for 1903." "English Medicine in the Anglo-Saxon Times." Oxford, Clarendon Press, 1904.

† Quoted in "Memorials of the Craft of Surgery in England." From materials compiled by John Flint South. Edited by D'Arcy Power, London, 1886.

In a record dated 1389, Master Surgeons undertake "to practee truly their trade, and to make faithful oversight of all others, both men and women, occupied in cures or using the art of surgery, presenting their luck both in practee and medicines so often as needs be to the aforesaid Mayor and Aldermen."

An attempt to secure legal control of medical practice was made by the physicians in the early part of the fifteenth century. About 1421 they presented a petition to the King setting forth that "many uncomynge and unapproved in the forsayd science practiseth and Specialy in Fisyk, so that in this Roialme is every men be he neuer so lewed, taking upon him praetyse, ysuffred to use hit, to grete harm and slaughter of many men." Wherefore they prayed that a Statute might be framed "perpetually to be straitly yused and kept, that no man of no manner of estate, degre or condieion praetyse in Fisyk from this time forward, but he have long tyme yused the scoles of Fisyk withynne som Universitie, and be graduated in the same . . . undur payne of long emprisonement and payinge xlii to the King; and that no woman use the praetyse of Fisyk undre the same payne." A gracious reply was returned to the petition, and the Lords of the Council were directed to see that effect was given to the demands of the physieians. Nothing, however, seems to have come of this. The physieians then united themselves with the surgeons for the formation of a college, with powers to prevent unauthorised practice. To this scheme the Mayor and Aldermen gave their sanction in 1424* Nothing more is heard of the College, and it may be inferred that the physieians and surgeons agreed to a separation on the ground of incompatibility of temper. In 1435 we find the surgeons an established body, with laws and regulations of its own, a copy of which is in the possession of the Barbers' Company. This company was incorporated into the Guild of Surgeons by Henry VIII. in 1540.

To that masterful Sovereign belongs the credit of having been the pioneer of medical reform in this country. In 1511, the third year of his reign, an Act for the regulation of medical and surgical practice was passed. As the Act gives an idea of the state of the healing art in London at the beginning of the sixteenth century, the most important passages may be quoted:—"Forasmuch as the science and cunning of physik and surgery (to the perfect knowledge whereof be requisite both great learning and ripe experience) is daily within this realm exercised by a great multitude of ignorant persons, of whom the greater part have no manner of insight in the same, nor in any other kind of learning: some also can no letters on the book, so far forth, that common artificers, as smiths, weavers, and women, boldly and accustomedly take upon them great enres

* South: *op. cit.*

and things of great difficulty : in the which they partly use sorcery and witchcraft, partly apply such medicines unto the disease as be very noious, and nothing meet therefore, to the high displeasure of God, great infamy to the faculty, and the grievous hurt, damage, and destruction of many of the King's liege people, most especially of those that cannot discern the uncnning from the cunning : Be it therefore (to the surety and comfort of all manner people), by the authority of this present Parliament, enacted that no person within the City of London, nor within seven miles of the same, take upon him to exercise and occupy as a physician or surgeon, except he be first examined, approved, and admitted by the Bishop of London, or by the Dean of Paul's for the time being, calling to him or them four doctors of physik, and for surgery other expert persons in that faculty, and for the first examination such as they shall think convenient, and afterward alway four of them that have been so approved, upon the pain of forfeiture for every month that they do occupy as physicians or surgeons, not admitted or examined after the tenour of this Act of five pound, etc. And over this, That no person out of the said City, and precinct of seven miles of the same, except he have been (as is aforesaid) approved in the same, take upon him to exercise and occupy as a physician or surgeon, in any diocese within this realm, but if he be first examined and approved by the Bishop of the same diocese, or, he being out of the diocese, by his Vicar-general ; either of them calling to them such expert persons in the said faculties, as their discretion shall think convenient, and giving their letters, testimonials under their seal to him that they shall so approve, upon like pain to them that occupy contrary to this Act, etc." In a memorandum appended to the Act it is provided "that surgeons be comprised in this Act as physicians, for like mischief of ignorant persons presuming to exercise surgery."

This Act may be called the Magna Charta of the medical profession in this country. A short account of the licensing bodies which have their headquarters in London may not be out of place. They are arranged in the order of their creation.

THE MEDICAL CORPORATIONS.

THE ROYAL COLLEGE OF PHYSICIANS OF LONDON.

To Henry VIII. is due the foundation of the Royal College of Physicians, which was created in 1518. He was doubtless moved to take this step by his physician, Linacre. Linacre was perhaps more a scholar than a physician, but he had the confidence of the sovereign and much influence in high places and great reputation among men of learning. He was the first president of the College. It has occupied its present site at the north-east corner of Trafalgar Square since 1825. Before that it had long occupied a building in Warwick Lane, which is referred to by Garth in "The Dispensary" in the following lines :—

Not far from that most celebrated place
Where angry Justice shews her awful face;
Where little villains must submit to fate
That Great Ones may enjoy the World in State;
There stands a Dome majestick to the Sight,
And sumptuous Arches bear its oval Height;
A golden Globe plac'd high with artful skill
Seems to the distant sight, a gilded Pill.

The College has a considerable library containing a number of rare volumes. The College also possesses many curiosities interesting to the medical antiquarian. Among these are a silver-mounted rod used by William Harvey to point to parts of the dissected body to which he wished to call the attention of his hearers, it being considered beneath the dignity of a physician in his day to touch a "slovenly unhandsome corpse"; a gold-headed cane carried successively by John Radcliffe (1650-1714), the famous physician whose name is written over the University of Oxford in benefactions, several of which are for the promotion of medical study; by Richard Mead (1693-1754); by A. Askew (1722-1774); by William Pitcairn (1711-1791); and lastly, by Matthew Baillie (1761-1823), nephew of John Hunter, the creator of modern biology. Something of what that historic cane could tell could it but speak may be read in Dr. William Macmichael's fascinating little book, "The Gold-headed Cane." * The most precious treasure of the College is a series of dried anatomical preparations, displayed in six wooden tablets, of the blood vessels and nerves of the human body, believed to have been made by Harvey himself, and to have been used by him to illustrate his Lumleian Lectures on the Circulation. The College has a fine collection of portraits of physicians, an account of whose

* "The Gold-headed Cane," London, MDCCCXXVII. (printed without the author's name). A second edition was published in 1828; and a third, with additions by William Munk in 1884.

work would go far to the making of the history of English physic. The College of Physicians as a corporation consists of three orders—Fellows, Members, and Licentiates. The Licentiates and Members are admitted by examination; the former are mostly general practitioners, while the latter limit themselves to pure physic or to obstetric medicine. From among Members the Fellows are elected on the score of personal distinction and professional character. The governing body of the College consists of a President, who is elected every year by a method of voting said to be modelled on the procedure of a Conclave for the election of the Pope; four censors, who exercise the disciplinary functions of the College; a registrar; a treasurer, and a council. All the officers are chosen from among the Fellows. The constitution of the College is thus aristocratic, but all the Fellows have a voice in the conduct of its affairs. In the absence of any body recognised as the official representative of medical science, the counsel of the College is sometimes sought by Government on matters relating to public health. The College issues the official *Nomenclature of Diseases*.

THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

The Surgeons were granted a legal separation from the Barbers, and were incorporated as a Company by Act of Parliament in 1745. The Surgeons had to leave the hall, the library, the plate, and most of the belongings of the old United Company in the hands of the Barbers. They began their new life by building a Hall in the Old Bailey in 1752. There Oliver Goldsmith was plucked when he tried to qualify for a billet as surgeon's mate; there Tobias Smollett passed, and the description of the examination of Roderick Random is doubtless drawn from his own experience. The Company had a chequered career, and towards the end of the eighteenth century committed self-destruction by holding informal courts. Notwithstanding a good deal of opposition it rose from its ashes in 1800 as the Royal College of Surgeons. The College is lodged in a handsome building on the south side of Lincoln's Inn Fields. Its famous Museum has grown out of the collection of specimens made by John Hunter, which, after his death, was bought by Parliament. Among its contents is a series of anatomical plates prepared at Padua in 1646 by the direction of John Evelyn, the diarist. It has also a splendid library, which, besides books and periodicals, contains a large number of prints, autographs, and letters. It has also an interesting collection of portraits and busts of famous surgeons. Like the sister College, the College of Surgeons is essentially aristocratic in constitution. It consists of Fellows and Members, the commonalty including the large majority of practitioners in England. The governing body is elected by the Fellows from their own number, and the administration is in the hands of a President and Council. The Members have no voice in the conduct of the affairs of the College.

In 1886 the two Colleges combined to form a Conjoint Board for the examination of students, and the granting of licences to practise medicine, surgery, and midwifery. The examinations are held in a building erected for the purpose on the Victoria Embankment near the Savoy. There, too, research laboratories were maintained by the two Colleges for a number of years; but, owing to financial considerations, these were closed. Research work, however, did not cease. The Imperial Cancer Research Fund was established in 1902, and the investigations are carried out in laboratories in the upper part of the Examination Hall. The hall was sold to the Institution of Electrical Engineers in 1908, though the building will continue for a time to be used for the purposes of the Conjoint Board. A new Examination Hall is about to be built in Queen Square, Bloomsbury. The architect, Mr. A. N. Prentice, has designed the external part of the building in an early Georgian style to harmonise with the surroundings. There will be two examination rooms for one hundred and seventy-five students, and two for seventy on the first and second floors. The third floor will be devoted to anatomy, chemical and physical laboratories; and the fourth floor to the laboratories of the Imperial Cancer Research Fund. The Conjoint Board is still the main portal through which the majority of those educated in the London Schools of Medicine enter the profession. But, owing to the recent growth of provincial universities, the number of London students has steadily diminished: and, unless some means can be devised whereby a degree can be obtained by what Professor Osler not long ago called a "good honest examination," it is to be feared they will become a vanishing quantity. This would be a great misfortune, both for the profession and for the nation, for nowhere in the world is there so large a field for clinical study as in London, which might, with greater truth than old Rome, be described as a "sink of nations." These bring with them their diseases to complete the immense stock of material for observation which London draws from among its own swarming millions and from the neighbouring parts of the country. Already, owing to various causes, much of this is wasted for purposes of medical study; and London, which should be the centre of the medical world, is a more or less fortuitous concourse of educational atoms. Co-ordination among the teaching and qualifying bodies, and the establishment of one portal, which should give a licence to practise, of uniform standard, and open the way to a degree, seems to be the only way in which the schools can escape gradual extinction.

THE SOCIETY OF APOTHECARIES OF LONDON.

The Society of Apothecaries obtained its Charter from James the First, in 1617. To speak with strict accuracy, it had the Charter

thrust upon it, for many of the vendors of drugs and compounders of medicines had no wish to be separated from the wealthy Company of Grocers with which they were previously united. The various phases in the evolution of the apothecaries are fully described by Mr. C. R. B. Barrett.* At first they did not prescribe, but gradually they developed into medical practitioners. The physicians for a long time strove to keep the apothecaries to their gullipots, and about the beginning of the eighteenth century the dispute became acute. The war between the physicians and apothecaries was celebrated by Sir Samuel Garth in a mock heroic poem called "The Dispensary," and the vaulting ambition of the apothecaries was satirised by Pope in his "Essay on Criticism," published in 1711. He writes :—

So modern 'Pothecaries, taught the art
By Doctor's bills to play the Doctor's part ;
Bold in the practice of mistaken rules,
Prescribe, apply, and call their masters fools.

It may be mentioned that the word "bills" in the second line means prescriptions. But as practitioners between the pure physicians on the one hand and the surgeons on the other, the Apothecaries supplied a public need, and they continued to give advice as well as compound medicines. They were fully recognised as practitioners of medicine in an Act passed in 1815, and now the diploma of the Society is in itself a complete qualification in medicine, surgery and midwifery. The question of title which exercised the minds of the holders of its licence even before the middle of the last century has now been settled and their proper description is Licentiate in Medicine and Surgery of the Society of Apothecaries (L.M.S.S.A.).

THE UNIVERSITY OF LONDON.

The University of London throws its degrees open *urbi et orbi*, but the conditions of examination necessary for their attainment place them beyond the reach of the average man. It is the variable and uncertain nature of the preliminary examinations rather than the high standard of those by which the candidate's professional knowledge is tested, that makes the University the most serious obstacle to the development of London as a medical centre.

The University of London, which used to be a purely examining board, was reconstituted in 1900, and has to some extent become a teaching body. University College and King's College have been incorporated in the University, and may be regarded as the nucleus of a future concrete and living entity which shall redeem London from the reproach of being the only great capital without a real University. The other medical schools of London are recognised as belonging

* "The History of the Society of Apothecaries of London." 1905.

to its Faculty of Medicine, but their relation to it is that of more or less independent protectorates than parts of its empire. The University itself makes some provision for teaching in the more abstruse regions of physiology and pathology in its buildings, which form part of the Imperial Institute at South Kensington. An attempt to collect funds for the foundation of an Institute in which all the subjects—chemistry, physics, zoology, anatomy, physiology, and pharmacology—that are the groundwork of scientific medicine, should be taught by professors of University rank, was unsuccessful, and the money given by the late Mr. Alfred Beit for the purpose of creating and assisting a fund for the establishment of an Institute of Medical Sciences had to be returned. At the end of 1909 Mr. Otto Beit, wishing that the money should in some way be devoted “to a public purpose as nearly as possible identical with that which had originally been contemplated” by his brother, placed in the hands of trustees the sum of £215,000 to found the “Beit Memorial Fellowships for Medical Research.” These Fellowships, each of the value of £250 a year, are tenable for three years; the work to be done is entirely in the direction of furthering medical science.

A Royal Commission on the University Education of London was appointed in the early part of 1909, and the organisation of the University is being critically examined. It is to be hoped that one outcome of its labours will be the consolidation into one organic whole of the medical forces of London now weakened by dispersal among so many competing bodies.

MEDICAL SCHOOLS AND HOSPITALS.

There are twelve medical schools in London, each of which is connected with a hospital, around which most of them have grown up. These are, in order of antiquity of foundation, St. Bartholomew's, St. Thomas's, Westminster, Guy's, St. George's, the London, the Middlesex, Charing Cross, University College, King's College, St. Mary's, and the London School of Medicine for Women attached to the Royal Free Hospital in Gray's Inn Road.

ST. BARTHOLOMEW'S HOSPITAL.

This famous institution, which stands close to the historic site of Smithfield, was founded by Rahere, in 1123. Many hospitals in the Middle Ages were shelters for the poor and aged, but St. Bartholomew's was from the first intended for the treatment of the sick.* In the fourteenth century John Mirfield, a member of the Priory of St. Bartholomew's, which owed its existence to the same pious founder, refers in his "*Breviarium Bartholomei*" (the earliest medical work connected with the great hospital in Smithfield) to cases of disease observed by him in the hospital. A passage quoted by Dr. Norman Moore† from the Close Rolls of Edward III. (March 5th, 1341) shows that the scope of the charity embraced not only the care of poor sick persons of all kinds till they had recovered, but that of pregnant women till their time of travail was over, and even the maintenance of the children till they were seven years old, of such as died in childbed. The hospital was re-founded after the dissolution of the Monasteries, and in the sixteenth century it had a regular medical staff. Among the men who have served it at different times are William Clowes, appointed in 1575, John Woodall, author of the "*Surgeon's Mate*," William Harvey, Percival Pott, John Abernethy, William Lawrence, and James Paget. One of the most striking features in the Hospital is its great Hall, approached by a handsome staircase, the walls of which are ornamented with frescoes painted by Hogarth in 1736. These are the Pool of Bethesda and the Good Samaritan, of which the artist says: "I presented them to the Charity and thought they might serve as a specimen to show that, were there an inclination in England for encouraging historical pictures, such a first essay might prove the painting them more easily attainable than is generally imagined." There are also portraits of famous surgeons of the past by Sir Joshua Reynolds and Sir Thomas Lawrence. The hospital, to which Mr. Butlin, President

* Norman Moore: "*The History of the Study of Medicine in the British Isles.*" Oxford, Clarendon Press. 1908, p. 23.

† *Op. cit.*

of the British Medical Association, is Consulting Surgeon, contains 744 beds. Three years ago extensive new buildings, erected on a site acquired from the old Bluecoat School, were opened by the Prince of Wales (now King George V.). A description of these was given in the *British Medical Journal* of November 27th, 1909 (p. 1546). Special attention may be called to the out-patient department, which is well arranged with a view to the comfort of the patients and the efficiency of their treatment. In May, 1909, a new block of buildings for the housing of the Pathological Department was opened. In this are large and well-equipped laboratories for clinical pathology, pathological histology, bacteriology, and chemical pathology. Within the precincts of the hospital is a residential college for students.

ST. THOMAS'S HOSPITAL.

This hospital was founded in the reign of William Rufus, it is said, by a woman—out of the proceeds of a ferry over the Thames near London Bridge. In 1870-1871 it was rebuilt in a series of pavilions on a site on the south side of the river, close to Lambeth Palace, and opposite the Houses of Parliament. It contains 605 beds. The school buildings comprise numerous theatres and laboratories. In the out-patient department are two large clinical theatres, affording numerous students an opportunity of following the practice of the staff. There is another theatre, more centrally situated, arranged for clinical demonstrations. Among the famous men who have been on the staff of St. Thomas's may be mentioned Cheselden, Sir John Simon, Dr. Charles Murchison (who had previously been lecturer on botany at St. Mary's, an assistant physician to King's College Hospital, and afterwards to the Middlesex) and Sir William McCormac. Lovers of literature may be interested to know that Mark Akenside, author of "The Pleasures of the Imagination," was physician to the hospital. It may be mentioned that St. Thomas's is the oldest School of Anatomy in London. Mr. John Else in his introductory lecture for the course of 1774-75 stated that the lectures on anatomy had been given there in uninterrupted succession for a hundred years by Simmons, Cheselden, Gill, Sharp, Venner and Hadley, Else's immediate predecessor.*

WESTMINSTER HOSPITAL.

This hospital, which is in the immediate neighbourhood of Westminster Abbey, was originally established in 1719. Its usefulness soon made extension necessary. It was enlarged in 1900-1, and now contains over 200 beds. The school attached to it is lodged in a separate building not far from the hospital. Among the

* This statement is made in a MS. Report of the Lectures delivered at St. Thomas's by Mr. Joseph Else, which was presented to the Royal College of Surgeons of England some years ago by Mr. Fred Haward.

men of note who have been on the staff may be mentioned Sir Anthony Carlisle, whom Charles Lamb calls "first of surgeons and story tellers, who can mend a lame narrative almost as well as he sets a fracture"; and Guthrie, the army surgeon, whose services in the Peninsula won special praise from the Iron Duke.

GUY'S HOSPITAL.

This hospital, which is situated in the Borough, near London Bridge, was founded by Thomas Guy, and was roofed in before his death on December 27th, 1724. It has 620 beds. Its medical school soon acquired a great reputation, which it has maintained to this day. That reputation is largely due to the fame of its teachers, among whom have been Astley Cooper, Richard Bright, and Thomas Addison, each of whom discovered a disease which bears his name, and the late Sir William Gull. Hodgkin, who also gave his name to a disease, was a lecturer in the school, but failed to get an appointment on the hospital staff. John Keats, the poet, was a student at Guy's. Much of interest relating to the medical school of Guy's Hospital and the men who have taught and those who have been trained there is to be found in the "Biographical History of Guy's Hospital," by Sir Samuel Wilks and G. T. Bettany.

Among the new features at Guy's are the Gordon Museum of Pathology and the Wills Library. The authorities of Guy's Hospital have recently decided to take a step which will add largely to the educational advantages of the school. In addition to ophthalmic, electrical, obstetrical, and throat departments, which had been in existence for many years, an orthopædic department was established in 1907. It has now been decided to establish departments of aural and genito-urinary surgery. The important thing about this new departure is that these special departments are not to be officered by general surgeons, but by specialists. There is a College in which sixty students can live.

An illustrated account of the additions and improvements made to Guy's Hospital in recent years was given in the *British Medical Journal* of December 4th, 1909 (p. 1623).

ST. GEORGE'S HOSPITAL.

The foundation of St. George's Hospital was the outcome of a schism which occurred among the governing body and medical staff of what was afterwards the Westminster Hospital. The quarrel was about a site, the majority thinking that Hyde Park Corner, to which the minority wished the hospital to be transferred, was too distant from the quarter for the benefit of which it had originally been established. The hospital, which is a conspicuous object in the centre of London fashionable life, has a service of 436 beds, of which 100 are

at the Atkinson-Morley Convalescent Home at Wimbledon. St. George's Hospital has had on its staff many men who have contributed to the progress of physic: an interesting account of them has been given by Dr. H. D. Rolleston* in an introductory address delivered on October 1st, 1909. Among them may be mentioned Matthew Baillie, Thomas Young, and Bence Jones. Conspicuous among its surgeons is the great name of John Hunter, who was appointed in 1768 and died within the walls of the hospital on October 16th, 1793. "on the same day, and perhaps hour, that the unfortunate Marie Antoinette, Queen of France, was beheaded in Paris," as W. Clift wrote in his account book. Benjamin Brodie, Prescott Hewett, and Timothy Holmes, whose name was utilised in the *memoria technica* of the dissecting room thirty years ago in the familiar "tip"—"Timothy doth vex all very nervous pupils,"—were also on its staff. Edward Jenner was a student of St. George's under Hunter.

LONDON HOSPITAL.

This is the largest hospital not only in the metropolis, but in the United Kingdom. It contains 922 beds. It has developed from a small infirmary established in Whitechapel, in 1740, on the initiative of a surgeon named John Harrison. The medical school is one of the oldest in London, dating from 1741, when John Harrison obtained leave for one of his apprentices to study in the hospital. It is claimed for the London that in connection with it the first regular school attached to a hospital in London was founded by Sir William Blizard, 1783. Both the hospital and the school have grown largely during the last fifteen years.† There is a receiving room through which on a fairly busy day there pass some two thousand patients. A splendid out-patient department was opened by King Edward VII., accompanied by Queen Alexandra, in 1903. This department contains, in addition to provision for cases belonging to the general domains of medicine and surgery, sub-departments in which diseases of the throat, eye, ear, skin, etc., are dealt with by specialists. A special Electrical Department was established in 1895. Soon afterwards a Röntgen Ray Department was started. There is a department for the light treatment of lupus, in which is the Finsen lamp given by Queen Alexandra in 1899. The surgical activity of the hospital may be gauged by the fact that there are twelve operating theatres, most of which have been constructed within the last few years. Quite recently a chair of urology has been established, to which Mr. Harry Fenwick has been appointed. A special feature in the London Hospital is the large number of

* Reprinted from the "St. George's Hospital Gazette," 1909, xvii., 103-108, 119-129.

† See E. W. Morris's "History of the London Hospital," London, Edwin Arnold, 1910.

Jews whom it treats. Four fine wards reserved for them have been built since 1899. About the same time were founded special lying-in wards (called the Marie Céleste wards) in memory of the wife of Mr. James Hora, to whom the endowment is due. A separate building, containing about sixty beds, is set apart for infectious cases. A Pathological Department, with post-mortem rooms and laboratories called after Sir Andrew Clark, was founded some years after the death of that famous physician, which took place in 1894. A Bacteriological Laboratory, an Opsonic Department, and an Inoculation Department, are among the most recent additions to the hospital. The hospital was enlarged in 1901 and again in 1904, but it may be said that since 1897 the whole hospital has been reconstructed and largely added to. The medical school has also been greatly enlarged. In October, 1909, three new laboratories—for physics, chemistry and physiology—were opened; they provide room for some 120 students.

An illustrated description of the London Hospital was given in the *British Medical Journal* of December 4th, 1909 (p. 1622).

MIDDLESEX HOSPITAL.

This hospital was originally founded as a dispensary in 1745. After not a few vicissitudes, it was incorporated by Act of Parliament in 1836. It contains 349 beds. Among the more famous members of its staff in the past may be mentioned Sir Henry Hallford, Sir Charles Bell, and Sir Thomas Watson. A distinctive feature of this hospital is the Cancer Department, which was opened in 1792. This department is endowed for the purpose of providing shelter to the victims of cancer "until either released by art or released by death." In this department every form of treatment that seems to form a reasonable hope of proving effective is given a fair trial. The department has grown from a single ward to a Cancer Wing, opened in 1900, in connection with which there are Research Laboratories, where investigations on malignant disease are carried out with the aid of every resource of modern science. The trustees of the late Mr. Harry Barnato recently decided to devote a quarter of a million to the building and endowment of an institution for the treatment of patients suffering from cancer. It is to contain 50 beds, and will be administered, except as regard its finances, in connection with the Middlesex Hospital. Laboratories are to be established, and the clinical and research work on cancer conducted under the auspices of the hospital will be considerably extended.

It may be mentioned that the hospital possesses an extremely beautiful chapel adapted for the Anglican service. Connected with this there is a room in which there are many monuments to the memory of nurses and others who have given their lives in the service of the hospital.

CHARING CROSS HOSPITAL.

This hospital began as a dispensary in 1815, and grew into a hospital in 1827. Large additions were made to it in 1904 and 1905, and now it forms an imposing block of masonry near Charing Cross. It contains some 300 beds. In addition to special departments for mental diseases, midwifery, gynaecology, diseases of children, diseases of the skin, eye, ear, throat, for orthopaedic surgery, for X-ray work and for electricity, laboratories for biology and physics have been established in the School which is separated from the Hospital. The Department of Pathology has been considerably enlarged. A special feature of the medical school is the large number of students of dentistry who receive their education in the principles of their art within its walls. Thomas Henry Huxley and Sir Joseph Fayrer studied medicine at Charing Cross Hospital.

UNIVERSITY COLLEGE AND HOSPITAL.

University College, in Gower Street, was originally the University of London, which was opened in 1828, and obtained a Charter of Incorporation in 1836. The hospital in connection with the College was founded in 1833. Its establishment marked the dawn of a new era in medical education in this country. Before that day London hospitals had been jealously-guarded preserves for the staff and their private pupils. The ordinary student literally "walked" the hospitals, picking up such crumbs of knowledge as fell from the great man's lips. There was no clinical teaching to speak of. Thomas Wakley was the pioneer of reform in this direction,* and, when appointments at University College Hospital were thrown open to public competition, the old system of close boroughs in the field of medical teaching was doomed. The medical school of University College has had many men of world-wide reputation on its staff. The names of William Sharpey, Burdon Sanderson, George Viner Ellis, Robert Liston, William Jenner, John Eric Erichsen, and Henry Thompson, are known to all students of medicine. It was at University College Hospital—on December 21st. 1846—that the first operation was performed under an anæsthetic in this country. The operator was Liston, and the agent used was ether, which had been employed successfully in America two months before. The hospital was completely rebuilt on an enlarged scale in 1905 at the cost of the late Sir John Blundell Maple. It has now 305 beds. University College, including the departments of Chemistry, Botany, Anatomy and Physiology which form part of the Faculty of Science, has been incorporated in the University of London. A school for

* Life of Thomas Wakley. By S. Squire Sprigge.

advanced medical studies is housed in a handsome building, the foundation stone of which was laid by Sir Donald Currie—whose munificence made its erection possible—on June 11th, 1906, opposite the College. This is intended for the work of the final subjects of the medical curriculum. Full provision for the study of the preliminary sciences is made in the College. There are post-graduate departments of pathological chemistry and practical hygiene. A very fully-equipped Institute of Physiology was opened last year. An illustrated description of this appeared in the *British Medical Journal* of June 12th, 1909. An account of the changes in the College and Hospital was given in the *Journal* of November 27, 1909 (p. 1544).

KING'S COLLEGE AND HOSPITAL.

In recent years great changes have come over King's College. Like University College it has been incorporated into the University of London. The College has been entirely separated from the Hospital, which is to be removed to a new site at Denmark Hill. The foundation stone of the new building, which will accommodate 600 patients, was laid by King Edward VII. on July 20th, 1909. The Advanced Medical School will be attached to the Hospital, while the preliminary sciences will be studied in the College, which remains in its original situation in the Strand.

Among the famous men who worked in King's College Hospital may be mentioned Anthony Todd Thomson, William Fergusson, William Bowman, Lord Lister, Playfair, and Priestley. It was at King's College that Sir Thomas Watson, who had previously been Physician to the Middlesex Hospital, delivered his classical lectures on the Principles and Practice of Medicine.

ST. MARY'S HOSPITAL.

This hospital was the result of a disagreement among the teachers attached to St. George's Hospital, as that hospital itself had been the outcome of a schism at the Westminster Hospital. It was opened in 1851. It is situated in Paddington, close to the Great Western Railway Station. The medical school, which came into being in 1854, has during the last twenty years, thanks to the energy and ability of its staff, advanced to the front rank. The principal addition to the Hospital is the Clarence Memorial wing, which was opened in 1909. The Hospital now contains 319 beds. A special feature of this hospital is the Department for Therapeutic Inoculation, which consists of a large block of consulting rooms and laboratories devoted to vaccine therapy. A new out-patient department was built some years ago, and an additional operating theatre was opened not long ago. The school

has also been enlarged by the addition of five laboratories and a photomicrographic department. The names of Sibson, Toynebee, Broadbent, and Cheadle are associated with St. Mary's.

ROYAL FREE HOSPITAL.

The Royal Free Hospital in Gray's Inn Road was established in 1828. In 1877 the hospital, which contains 165 beds, was made available for purposes of clinical instruction to students of the London School of Medicine for Women. There are departments for gynaecology, obstetrics, and for diseases of the eye, throat, and skin. A new front building was opened in 1895, and the hospital has been completely reconstructed.

MEDICAL EDUCATION OF WOMEN.

The mention of the Royal Free Hospital brings us by natural association to the institution in which the students of the hospital learn the principles of the art of healing. The London School of Medicine for Women, in Hunter Street, Brunswick Square, W.C., which was opened in 1874, is thoroughly equipped for all purposes of medical teaching. Since 1895 it has been rebuilt, the work being completed in 1900 at a cost of over £35,000. The laboratories, five in number, are large and well lighted. The total number of students in October, 1909, was 133. The soundness of the training given by this School is shown by the fact that a considerable proportion of its students take the degrees of the London University. To the Society of Apothecaries belongs the honour of having been the first licensing body in this country to open its doors to women. This it did as far back as 1865 in the person of Mrs. Garrett Anderson. Quite lately the example has been followed by the Royal Colleges. In 1909 a by-law was enacted by the College of Physicians making women eligible for admission as Licentiates and Members, and for the granting to them of a Diploma in Public Health. It was specially provided, however, that women should not be eligible for the Fellowship or be entitled to take part in the government, management or proceedings of the College. The first woman admitted to the membership was Miss Ivy Evelyn Woodward, M.D., Lond., who gained the right to use the letters M.R.C.P. in 1909; the first Licentiate was Dossibai Rustonsi Cowasji Patell, of Bombay, who was admitted on April 28th, 1910. The College of Surgeons also decided to admit women to its Membership and Fellowship, and to its Diploma in Dental Surgery; but it refused to allow them to be eligible as Members of the Council or to vote in elections to the Council, or otherwise to take part in the government, management, and proceedings of the College, nor are they eligible as Members of the Court of Examiners. This resolution became

operative in January, 1910. The first woman to pass her first professional examination for the Fellowship was Miss M. M. Basden, who successfully cleared this difficult barrier in May, 1910.

At the beginning of the present year the total number of registered medical women in England was 476.

POST-GRADUATE SCHOOLS.

Among the changes that have taken place since 1895 not the least important is the large development of post-graduate teaching. The oldest of the institutions established for this purpose is the West London Post-Graduate College, connected with the West London Hospital in Hammersmith, which was founded in 1895. The hospital was enlarged in 1896, and the scope of the teaching was correspondingly enlarged in the following year. In 1901 a special building was erected for the school. During the fifteen years of its existence a large number of medical practitioners, including many medical officers of the Navy, have taken advantage of the opportunities afforded at this Post-Graduate College of furbishing up their knowledge. The London Medical Graduates' College and Polyclinic, in Chenies Street, W.C., was founded in 1899, and attracts large numbers of practitioners to the lectures and demonstrations which are given by leading authorities. The College contains laboratories, a library, a reading room, and a museum. The London Post-Graduate Association is a combination of London hospitals for purposes of clinical instruction. The Association issues a ticket which opens to the holder the wards, operation theatres, dead houses, etc., of most of the general and special hospitals of London. The London School of Clinical Medicine, which was formally opened on October 8th, 1907, has its local habitation in the Dreadnought Hospital, Greenwich, which contains 250 beds. It was described in an illustrated article which was published in the *British Medical Journal* of October 26th, 1907 (p. 1155). It has two pathological laboratories and is fully equipped for teaching purposes. Besides the cases in its wards, students have the clinical advantages of certain special hospitals in the neighbourhood. Since it was opened in March, 1906, more than 200 students have passed through its classes. The North-Eastern Post-Graduate College has its headquarters at the Prince of Wales's General Hospital, South Tottenham, which has 125 beds. Since 1899 the hospital has been enlarged by the addition of special departments. The new buildings were opened in 1907. Classes are arranged for instruction in special clinical and pathological work, and arrangements have been made with other institutions where students can obtain instruction in lunacy, fever, and other subjects.

SPECIAL HOSPITALS.

The Special Hospitals must be very briefly dealt with. Of *children's hospitals*, the oldest, which is situated in Great Ormond Street, is the best known. It has 220 beds, besides 40 at Highgate. Since 1898 it has been completely rebuilt, and a large out-patient and casualty department was opened in 1908. Then comes in order of age the Victoria Hospital, with 104 beds, in Tite Street, Chelsea, and 50 at Broadstairs. Next comes the East London Hospital for Children, at Shadwell, with 120 beds, the romantic story of whose foundation was told by Charles Dickens. In 1908 a new wing was added to the Evelina Hospital, in Southwark Bridge Road, which has 76 cots. The Belgrave Hospital for Children, in Clapham Road, which was closed in 1902, was re-opened in 1903; it now has 40 beds. The Paddington Green Children's Hospital, with 46 beds, was re-opened as a new hospital in 1895. The Alexandra Hospital for Children with Hip Diseases, in Queen Square, was rebuilt in 1899; it has 100 beds. Additions were made to the Royal Waterloo Hospital for Children and Women in 1904; it accommodates 90 patients. It is to be further enlarged when funds are available. The Queen's (formerly the North Eastern) Hospital for Children has been entirely rebuilt in recent years; it has 130 beds. The Royal National Orthopædic Hospital was rebuilt in 1908; the City Orthopædic Hospital was re-constructed in 1899, and has now been amalgamated with the former.

As to the *hospitals for women*, it may be mentioned that the City of London Lying-in Hospital (60 beds) was rebuilt in 1907; the Queen Charlotte Lying-in Hospital (69 beds) was enlarged in 1898-99; and the Grosvenor Hospital for Women and Children, Vincent Square (33 beds and 3 private wards), was rebuilt in 1895-97. Additions were made to the Samaritan Hospital for Women, Marylebone Road, in 1905-07. Special interest attaches to this hospital, as it is the scene of the labours and triumphs of Spencer Wells.

In regard to *hospitals for consumption*, the most notable change is the general adoption of the open-air treatment. The Royal Hospital for Diseases of the Chest, City Road, had a Sanitary Tower added to it in 1905. The open-air treatment is carried out with success in some of the general hospitals, such as St. Thomas's.

Coming to the *hospitals for diseases of the eye*, the Royal London Ophthalmic Hospital (Moortields) was removed to a larger building in the City Road in 1899, and further extensions were made in 1907; it has now 138 beds and an immense out-patient department, which attracts doctors in search of knowledge from all parts of the world.

Of *hospitals for nervous diseases*, the foremost is the National Hospital for the Paralysed and Epileptic, in Queen Square,

Bloomsbury ; it has 160 beds. This hospital has a medical school attached to it which is affiliated to the London University. The Hospital for Epilepsy and Paralysis, Maida Vale (40 beds), was rebuilt in 1902-04 ; the West End Hospital for Diseases of the Nervous System (77 beds), was enlarged in 1906.

The St. Mark's Hospital for Fistula (48 beds), in the City Road was rebuilt in 1896 ; and the Poplar Hospital for Accidents, Blackwall (103 beds), was rebuilt in 1897 and 1901.

FOREIGN HOSPITALS.

There are three hospitals in London which are particularly intended for the reception of foreigners. These are the French Hospital (Shaftesbury Avenue, W.C.), the German Hospital (Dalston Lane, N.E.), the Italian Hospital (Queen Square, Bloomsbury, W.C.). The French Hospital, which was founded in 1867, and completely rebuilt in 1890, has 70 beds ; it is for all poor foreigners speaking French. The German Hospital, which was established in 1845, has 130 beds ; it is free to Germans and German-speaking patients, and to others in cases of emergency. The Italian Hospital was established in 1884, and rebuilt in 1900. It has 50 beds and is free to all patients, but Italians have the preference.

MENTAL HOSPITALS AND ASYLUMS.

Since 1895 the London County Council has established three new County Lunatic Asylums ; Bexley, Kent, in 1898, with 2,169 patients ; at Horton, Epsom, in 1902, with an average daily number of 2,119 patients. The Council also established a County Epileptic Colony at Ewell, Surrey, in 1903, with 391 patients. The Long Grove Asylum, Epsom, with a daily average number of 1,876 patients, was established in 1907. These additions to the already large provision for London lunatics show the increased prevalence of mental disorder. Although the Claybury Asylum at Woodford Bridge, Essex, was opened in 1893, the Pathological Laboratory, which has its seat within its precincts, was not opened till 1896. There is the centre of the pathological work for all the lunatic asylums within the jurisdiction of the London County Council. It was described in an illustrated article which appeared in the *British Medical Journal* of February 18th, 1899, p. 420. The work of Dr. F. W. Mott and his assistants in the investigation of the pathology of various forms of insanity, has made the name of Claybury a household word to all who are specially interested in neurology. A great drawback to its usefulness is its inaccessible situation. If the Laboratory were transferred to London, as has often been suggested, and placed in connection with a hospital for the treatment of cases of

recent and acute mental disorder, it would doubtless become a centre of medico-psychological and neurological science, which would powerfully help in the elucidation of disorders which are increasing in prevalence. In 1908 Dr. Henry Mandsley offered £30,000 towards the cost of erection and equipment of such a hospital, but although the Asylums Committee reported favourably on the scheme, the London County Council has unfortunately not yet seen its way to carry it into execution.

BETHLEM ROYAL HOSPITAL.

Although this ancient institution does not, strictly speaking, fall within the scope of this introduction, it is so famous that a few words about it will not be out of place.

This hospital owes its name and origin to Simon FitzMary, a citizen of London, who founded it in 1247. The hospital was granted a Charter by Henry VIII. in 1546, and though originally a religious house or priory, as early as 1403 it was mentioned as being a shelter for mentally afflicted people, and it is now one of the most important mental hospitals in London. The present building was erected in 1815 and contains accommodation for about 300 patients. It only receives persons of the educated classes who are deemed curable, and over 70 per cent. of these patients are received free of charge. The hospital is well worth a visit both for its old and historical interests and for the exceptional opportunity it gives for studying mental disorder. It is an imposing building standing in spacious grounds, where a garden party is to be given during the Annual Meeting.

ST. LUKE'S HOSPITAL.

St. Luke's Hospital for Lunatics in Old Street, E.C., was established in 1751. Its daily average number of patients is 187. It is especially intended for the reception of patients of the middle classes whose means are limited.

FEVER HOSPITALS.

London is well provided with these institutions. There are ten hospitals for acute cases and two convalescent hospitals. Three of them, containing upwards of 500 beds apiece, have been erected since 1895; the Brook Hospital, Shooters Hill, near Woolwich; the Park Hospital, Hither Green, Lewisham, which was opened by the late King, when Prince of Wales, in 1897; and the Grove Hospital, at Tooting. The Western Hospital, at West Brompton, the South Eastern, at New Cross, and the North Eastern, at Tottenham, have been rebuilt or enlarged. Any of these hospitals is worth a visit by

the hygienist who is interested in fever hospital construction and administration. At the South Western Hospital, at Stockwell, and at the Eastern Hospital, at Homerton, Hackney, both of which institutions are readily accessible by train or tram, can be seen examples of isolation by cubicles or separate rooms with glass partitions, as first introduced in Paris. A modification of the Paris system will be found at the isolation hospital of the Walthamstow Urban District Council, near the Highams Park Station on the G.E.R. from Liverpool Street to Chingford. All the hospitals mentioned, with the exception of the last, are under the management of the Metropolitan Asylums Board, which has also recently built a small-pox hospital for 800 patients at Joyee Green, near Dartford, Kent. Nor must we forget the London Fever Hospital, in the Liverpool Road, at Islington. For very many years it was the only fever hospital in London, and with it are connected the names of Murchison, Jenner, Tweedie, and Cayley. It is now a hospital for paying patients.

POOR LAW INFIRMARIES.

Most of the Boards of Guardians of the Metropolitan parishes have during the past ten or fifteen years rebuilt or enlarged their infirmaries: so that now many of these institutions can vie with the general hospitals in size, equipment and clinical work. Amongst these hospitals must be included the Children's Infirmary at Carshalton, which is under the control of the Asylums Board. It contains about 800 beds for children, who are drafted to it from the Workhouses and the Infirmarys of the Metropolis, and is the only institution of its kind in the country.

LONDON SCHOOL OF TROPICAL MEDICINE.

One of the most useful developments of medical teaching and research in the Metropolis since 1895 is the London School of Tropical Medicine at the Victoria and Albert Docks, in connection with the Seamen's Hospital. It was founded on the initiative of Sir Patrick Manson, whose voice for years had been as that of one crying in the wilderness, till he found in Mr. Joseph Chamberlain a Colonial Secretary sufficiently enlightened to understand his aims and appreciate the importance to the Empire of a knowledge of tropical diseases. Opened in October, 1899, it has already educated a thousand students and trained them, not only how to deal with the strange diseases met with in the Tropics, but how to further knowledge on the subject by the most advanced scientific methods. The School, which had very small beginnings, has now grown to a flourishing institution, with an excellently appointed hospital, a laboratory for 56 students, other laboratories for research, and a

museum with workrooms attached for the study of the venomous snakes and biting flies peculiar to each tropical dependency. The work of the School has developed so largely that the necessity for a considerable extension has become urgent. For this purpose it is hoped to secure a piece of land from the Port of London Authority on which to build new laboratories. Lord Sheffield recently provided an endowment of £1,200, to be used in the investigation of diphtheria in the Island of Fiji.

ROYAL ARMY MEDICAL COLLEGE.

The Royal Army Medical College, which was opened in May, 1907, occupies the north and south sides of a square of which the Tate Gallery is the centre. The site is on the left bank of the Thames and is about ten minutes' walk from Westminster or Victoria. The building consists of the college, or laboratory block, the hospital and the residential or mess block.

The College is a handsome building in red brick and stone and is fitted up according to the most modern ideas and fulfils up-to-date requirements.

On the ground floor are the hygiene and pathological class rooms, a lecture theatre capable of seating 200, and the laboratories of the teaching staff. On the first floor is a fine library and a number of research laboratories, also the vaccine department. The top floor is occupied by the museums, the photographic department and rooms for the preparation of Media. The basement provides accommodation for sterilising, photomicrographic room, hygiene museum, boiler house, etc.

The hospital, which is named after Queen Alexandra, was opened in May, 1905, and is equipped for 220 beds. It also has accommodation for a number of officers. It is built in the usual pavilion system with a central administrative block. There are excellent Röntgen Ray and electro-therapeutic departments, and the operating theatre and general fitting leave little to be desired. The Professors of Military Surgery and Tropical Medicine are in charge of the surgical and medical divisions.

The residential block, or, as it is usually called, the mess, is a handsome building, facing the Thames and contains perhaps the finest suite of public rooms in any Army institution of like nature. The ante-room and dining-room are magnificently panelled in oak and the comfort of the officers living there has been carefully studied. Above the public rooms are quarters for 77 officers. There is also a house for the Commandant.

The Staff of the College consists of :—A Commandant and Director of Studies, a Professor of Hygiene, an Assistant Professor of Hygiene, a Professor of Bacteriology, an Assistant Professor of Bacteriology,

a Professor of Surgery, a Professor of Tropical Medicine. In addition to these there is a hospital staff and various officers in the vaccine and research branches.

There are two classes of students attending the College courses. On entering the Service the young lieutenants are sent there for three months to learn Military Surgery, Tropical Medicine, Bacteriology, Hygiene and Administration. The Senior Class is drawn from officers of the rank of Captain, who are sent to the College for nine months to undergo instruction in laboratory work, the study of some special subject and a refreshing course of general medicine and surgery. In the latter subjects the teaching is carried on by an extern staff.

INSTITUTES FOR RESEARCH.

Research work is carried on in most of the medical schools, and the large additions in the form of laboratory accommodation which have been made in recent years, present much greater facilities for such work than were available in 1895. The laboratories of the Cancer Research Fund have already been mentioned. Then there is the Lister Institute in Chelsea Gardens, formerly known as the Jenner Institute of Preventive Medicine; its name was changed in 1903. Owing to the enlightened liberality of Lord Iveagh, it is well endowed. It has a country establishment at Elstree, in Hertfordshire, with extensive laboratories and stables; there curative serums for diphtheria and other diseases are prepared. Mention may also be made of the Francis Galton Laboratory for National Eugenics at University College, opened a year or two ago for the study of problems of the greatest practical importance for the future of the race. It is under the direction of Professor Karl Pearson. Early in 1909 a Radium Institute was founded. It is intended for the investigation of the physical and therapeutic properties of radium and for the treatment of patients. The building, which will not be opened for some months, is in the immediate neighbourhood of All Souls' Church, Langham Place.

THE PHYSIC GARDEN, CHELSEA.

Apart from its scientific value, the Physic Garden at Chelsea is of historic interest. For two centuries the Society of Apothecaries maintained the garden at its own charge and much good work was done there. It comprises nearly four acres facing the Embankment, and was founded about 1673 by the Apothecaries' Company for the advancement of botany as a science, and held by it on lease until 1722, when it was conveyed to it by Sir Hans Sloane. The Society of Apothecaries found increasing difficulty in keeping the garden in a

proper state of efficiency, and neither the Royal Society nor the College of Physicians was prepared to undertake the trust on the condition of providing funds for its maintenance. In 1897, a proposal was made that it should be purchased and presented to the public as a memorial of Queen Victoria's Diamond Jubilee, but fortunately the Trustees of the London Parochial Charities came to the rescue and saved the garden. The practical management of the garden was vested in a Committee formed of representatives nominated by the Trustees of the London Parochial Charities, the Treasury, the Lord President of the Council, the Technical Education Board, the Royal Society, the Royal College of Physicians, the Society of Apothecaries, the Pharmaceutical Society, the London County Council, and the Senate of the University of London. The Committee also includes among its members Earl Cadogan and his successors, as representing Sir Hans Sloane, who conveyed the garden to the Apothecaries' Company in trust for the encouragement of botany. Under the new scheme it was provided that the garden is to be used for promoting the study of botany, with especial reference to the requirements of general education, of scientific instruction and research in systematic botany and vegetable physiology, and for instruction in technical pharmacology as far as the culture of medicinal plants is concerned.

SOCIETIES.

A very important change in the constitution of the Medical Societies of London took place by their amalgamation—with one or two exceptions—into one body, entitled the Royal Society of Medicine. The movement towards this end was started many years ago, but it was not till 1907 that the Union became an accomplished fact. What was formerly the Royal Medical and Chirurgical Society took the lead in the movement. It has lately disposed of its old premises in Hanover Square, and is building a new house for itself at the corner between Henrietta Street and Wimpole Street, W. In the meantime it is occupying temporary premises in Cavendish Square. The Royal Society of Medicine has absorbed into itself the Royal Medical and Chirurgical Society, Pathological Society of London, Epidemiological Society, Odontological Society of Great Britain, Obstetrical Society of London, Clinical Society of London, Dermatological Society of London, British Gynaecological Society, Neurological Society, British Laryngological, Rhinological, and Otological Association, Laryngological Society of London, Dermatological Society of Great Britain and Ireland, Otological Society of Great Britain and Ireland, British Electrotherapeutical Society, the Therapeutical Society, the Society of Anaesthetists, and the Society for the Study of Disease in Children.

MUSEUMS AND LIBRARIES.

Detailed accounts of the various museums of special interest to members of the medical profession will be found at page 39.

The principal libraries are those of the Royal College of Physicians, which, according to Mr. W. R. B. Prideaux,* contained in 1906 twenty-five thousand volumes. Among its chief treasures are a copy of Caxton's "Recuyell of the Hystorys of Troye," and a fourteenth century paper MS. of Chaucer. There are in the library forty-two books printed before 1500, and over 200 English-printed books dating before 1640. The library of the College of Surgeons contains some 60,000 volumes, including journals and transactions, and about forty works printed before 1500. The Society of Apothecaries has a library dating from 1681. Some of the botanical works contained in it are rare and valuable. The library of the old Royal Medical and Chirurgical Society, now transferred to the Royal Society of Medicine, contains about 70,000 volumes, in addition to several smaller collections formerly belonging to Societies which have become amalgamated therewith. The Medical Society, which has remained outside the federation of societies, has a library of 25,000 volumes, which includes an interesting collection of Greek medical MSS. of the Byzantine School, which came from the fine classical library collected by Dr. Askew. Most of the medical schools have collections of books. The library of the British Medical Association was started in 1887. Its growth has been remarkable. In 1895 it contained 7,000 volumes; it has now about 20,000 volumes. That number does not include 12,000 theses for the doctor's degree of the University of Paris; this collection forms a special and particularly valuable feature of the Library of the British Medical Association. Altogether there were in 1906 thirty-four medical libraries in London.

THE BRITISH MEDICAL ASSOCIATION.

The British Medical Association was reconstituted on a more representative basis in 1902. The changes made were directed to strengthening the profession by a better organisation. This is not the place to speak of the work that has already been done; that is recorded in the reports of the Council and of the Annual Representative Meetings, which are regularly published in the *British Medical Journal*. Mention must, however, be made of the new home which the Association has made for itself, and into possession of which it

* The Medical Libraries of London. Reprinted from *The Library Association Record*, September, 1906.



OFFICES OF THE BRITISH MEDICAL ASSOCIATION.

entered in November, 1908. The building was designed by Mr. Percy Adams ; the outside was decorated with emblematic figures by Mr. Epstein. These were at first the object of some criticism, but elicited the emphatic approval of the leading authorities on art in this country. The building is now generally recognised as forming an interesting architectural feature of the great thoroughfare in which it is situated. The interior of the building provides accommodation for the work of the various departments of the head office of the Association. It has a noble Council Chamber and Library, and a number of rooms for committees, besides a common room for members.

PRESIDENTIAL BADGE.

The Reception Committee has decided with the permission of the Metropolitan Counties Branch to present to the Association in their name a Presidential Badge of Office, to be worn by each successive President. This proposal has been submitted to and approved by the Central Council.

The Badge is designed upon lines which have no traditional limitations.

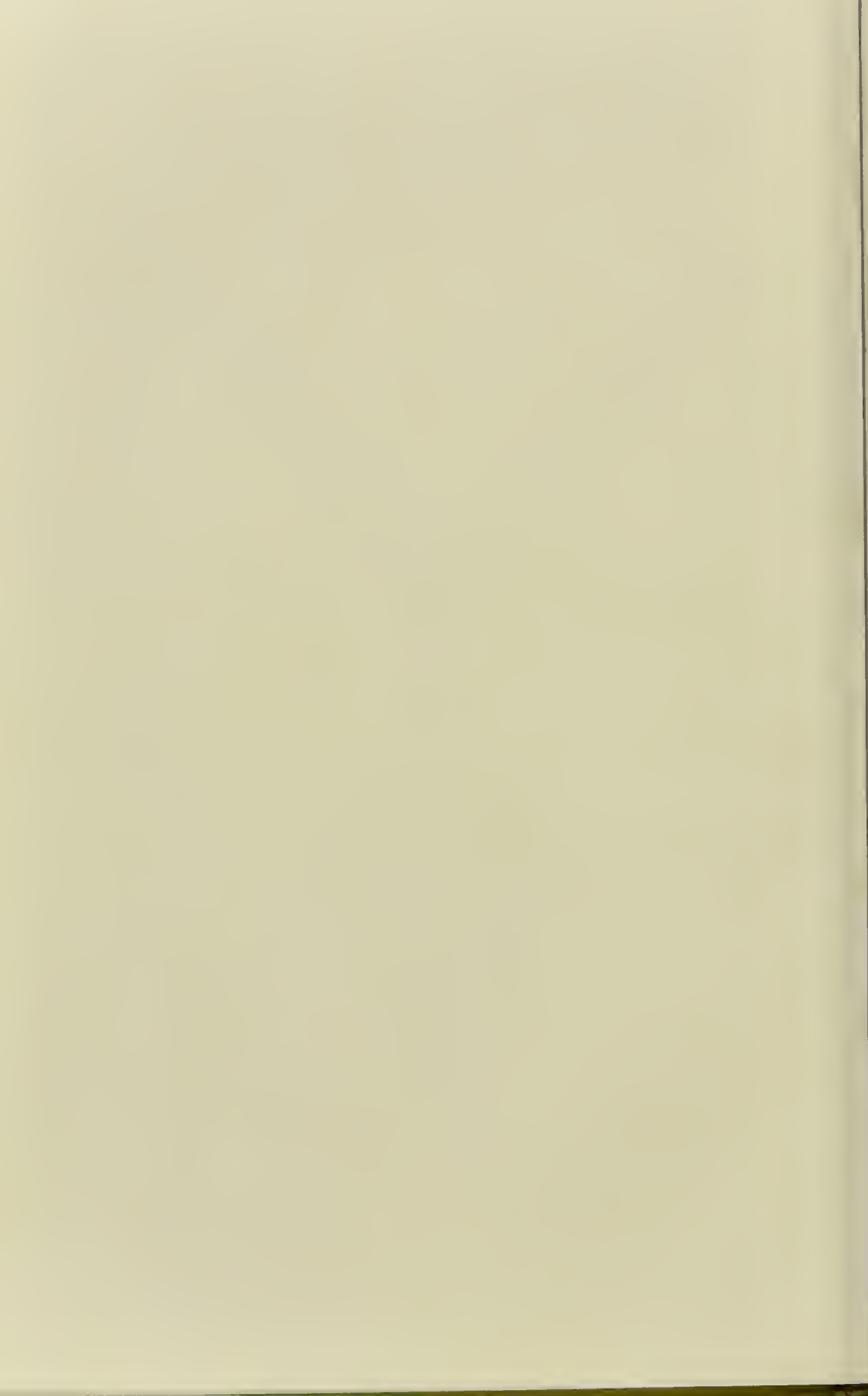
The central feature is formed by a figure of Hygeia in classic robes and the symbolic snake and cup. The figure is worked in relief on a blue enamelled background, and is set in an enamelled border which connects the floral emblems indicating the principal British Oversea Dominions : the maple for Canada, the sugar-bush tree for Africa, the lotus for India, the sugar cane for the West Indies, the wattleflower for Australia, and the trec-fern for New Zealand. These are mounted on the main framework of the Badge, at the extreme points of which are arranged the national emblems : the rose, the thistle, the shamrock and the leek respectively.

The Badge is connected to the collarette by a shield bearing the monogram of the Association in red enamel on an ivory ground. The front part of the collarette consists of a series of links with the names : Great Britain and Ireland, Canada, Africa, India, Australia, New Zealand, West Indies, in red enamel, while behind it terminates in a red silk ribbon.

The Badge is throughout of 18ct. gold and was designed and executed by Walter Stoye.

The Pendant, an illustration of which is given on the title-page, is a reproduction of the Badge on a smaller scale. It is intended that the Pendant should be retained by the President as a memento of his year of office.





MEANS OF GETTING ABOUT.

The visitor who has not had occasion to stay in London for several years will find that the means of getting about quickly and cheaply have been very greatly improved.

Those who do not wish to place their reliance on cabs—hansom, four-wheeler, or motor taximeter—will find it worth while to read the following observations, and to study the map of London showing the electric tube and other underground railways at the end of this volume.

The main lines of traffic in London north of the Thames, comprising the districts most generally frequented by visitors and tourists, run to-day as in the distant past, for the most part, from east to west. Certain omnibus routes running north and south have, however, long been in existence, and recently electric tube railways running in this direction have been opened.

OMNIBUSES.

EAST AND WEST.

The main routes followed by the omnibuses, both the horsed omnibuses and the motor omnibuses by which they have to so large an extent been replaced, may be considered as starting from the Bank of England in the City.

Many services run from the Bank by St. Paul's Churchyard, Fleet Street, and the Strand, to Trafalgar Square. Thence some lines incline south-west to Westminster, Victoria, Chelsea, and Fulham. Other lines traverse the Haymarket to Piccadilly, and run westward along that thoroughfare and the south side of Hyde Park to Knightsbridge. At this point the routes divide, some lines continuing due west past the Albert Hall to Kensington and Hammersmith, others turning south-westward along the Brompton Road to South Kensington. Either of these routes will take the traveller close to the University buildings, the one depositing him at the north and the other at the south end of Exhibition Road. Practically any omnibus with the legend "Piccadilly" will take the traveller to Exhibition Road, usually direct, or at worst with a single change.

Other services run from the Bank westward along Cheapside, Holborn and Oxford Street to the Marble Arch; some of these then continue due west, along the north side of Hyde Park to Notting Hill and Shepherd's Bush (Japan-British Exhibition), where there are connections with tramways to Ealing, Kew, Hampton Court, etc. Others turn northwards up Edgware Road to Kilburn.

NORTH AND SOUTH.

The most important lines running north and south are :—

1. Those which, starting from Victoria, run up Park Lane along the eastern side of Hyde Park to the Marble Arch, where some continue up Edgware Road to Kilburn, while others diverge by Baker Street to Maida Vale, St. John's Wood and Finchley.

2. Those, starting also from Victoria, which run by way of Trafalgar Square and Tottenham Court Road to Camden Town, Hampstead and Highgate. At the north end of Tottenham Court Road they connect with tramways to Finsbury Park and thence to New Southgate, Enfield, Edmonton, Tottenham, Muswell Hill and Barnet.

ELECTRIC RAILWAYS.

London from the Bank westward is now very well supplied with electric railways. A coloured sketch map forms the back fly-leaf to this volume.

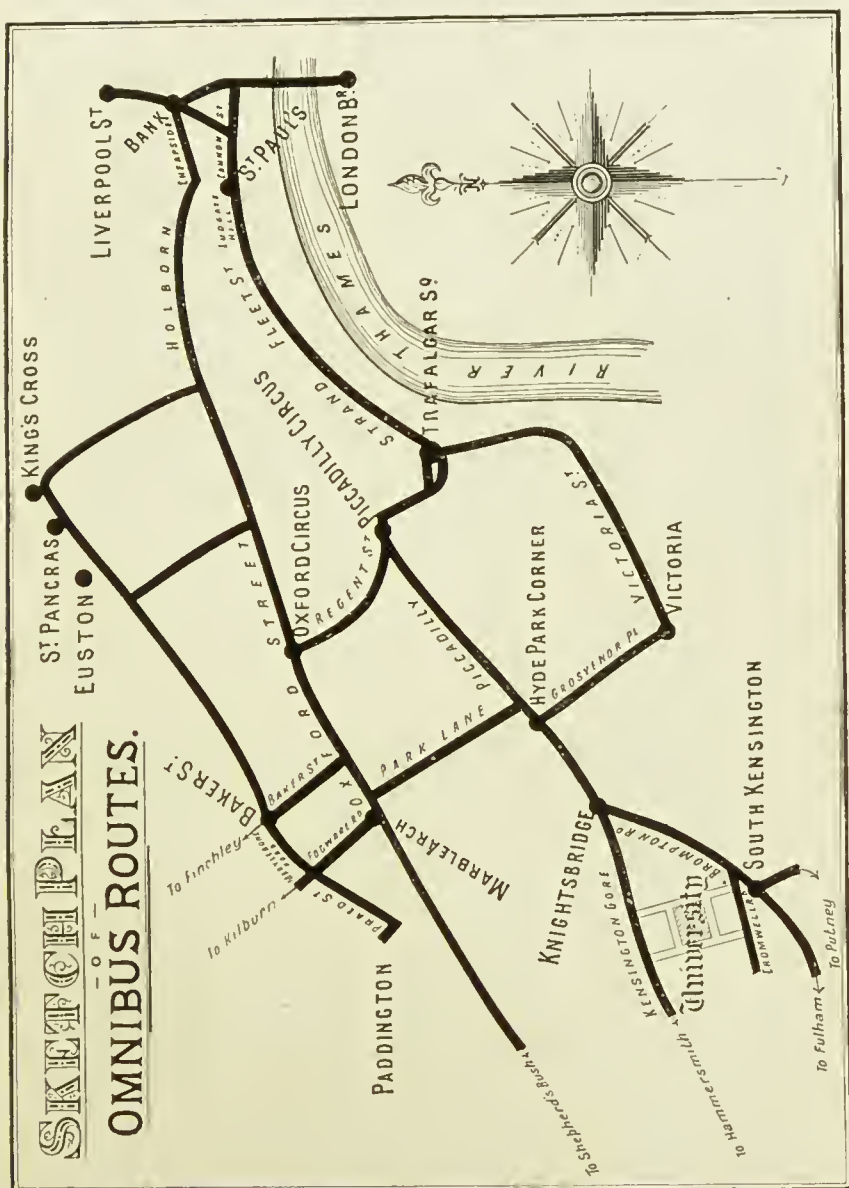
For a member attending the Annual Meeting the two most important will be the old Underground (District) Railway, now electrified and clean, which has a station at South Kensington, and the Piccadilly Railway which, after running nearly due south from Finsbury Park to Holborn, runs thence westward, and has a station in the same building as the District at South Kensington. The remainder of the old Underground (the Metropolitan Railway), also clean and electrified, forms the Inner Circle with the District by junctions at Cannon Street and Gloucester Road. It has extensions *eastward* to Whitechapel and beyond, *westward via* Wood Lane (Japan-British Exhibition) to Hammersmith, Twickenham, and Richmond, and *north-westward* (junction at Baker Street) to Willesden, Harrow, Rickmansworth, and beyond.

The two electric tube railways running generally in a north and south direction are the Baker Street and Waterloo, and the Hampstead and Highgate; both have exchanges with the Piccadilly Railway, the Hampstead and Highgate Railway at Leicester Square, and the Waterloo and Baker Street Railway at Piccadilly Circus.

The Bakerloo Railway runs beyond Waterloo to the Elephant and Castle, where it has an exchange with the City and South London Railway which runs from the Euston Station on the Hampstead Railway *via* King's Cross, Islington, the Bank, and London Bridge, to Clapham Common.

The Hampstead and Highgate Railway starts at Charing Cross, and bifurcates at Camden Town Station, the one branch going to Highgate, the other to Hampstead and Golder's Green.

The Central London Railway follows generally the line of Oxford Street to Shepherd's Bush and Wood Lane (for the Japan-British



Exhibition). It has an exchange with the Bakerloo Railway at Oxford Circus and with the Hampstead and Highgate Railway at Tottenham Court Road.

The electric tramway to Acton, Ealing and Uxbridge, and another line to Hampton Court and Kew, starts from Shepherd's Bush Station on the Central London Railway; from the Hammersmith Station, reached either by the Piccadilly or by the District Railway; there are also electric tramways to Hampton Court and Kew.

In addition to the tramway routes incidentally referred to above the London County Council has an extensive system of tramways worked by electric traction, running through the South of London. Starting from the Victoria Embankment, trams run over Blackfriars and Westminster Bridges to Brixton, Clapham Common, Greenwich, Merton, Norbury, Norwood, Peckham, Streatham, Tooting, Tower of London, and Woolwich, at frequent intervals. From Victoria Station there is also a good service of trams over Vauxhall Bridge to the places enumerated above, and passengers interchange at convenient centres. A connection between the southern and northern systems of tramways is provided by a line which, passing through a tunnel from the Victoria Embankment at Waterloo Bridge, emerges at Theobald's Road and runs on to Highbury.

ABBREVIATIONS.

Baker Street and Waterloo Railway	...	...	B
Central London Railway	...	...	C
District Railway	...	...	D
Hampstead and Highgate Railway	...	...	H
Metropolitan Railway	...	...	M
Piccadilly Railway	...	...	P

THE IMPERIAL INSTITUTE, THE UNIVERSITY OF LONDON, AND THE IMPERIAL COLLEGE OF SCIENCE AND TECHNOLOGY.

The parallelogram extending from Kensington Gore, where the Albert Hall faces the Albert Memorial and Kensington Gardens southward to Cromwell Road, is almost entirely occupied by public buildings. In the mid part of the site is the Imperial Institute, the eastern portion of which is in the occupation of the University of London. Facing this on the south are the buildings of the Imperial College of Science and Technology. The southernmost part of the site is occupied by the British Museum of Natural History, facing Cromwell Road (see page 40). The parallelogram is bounded on the east by Exhibition Road, and on the west by Queen's Gate. The position of the buildings is shown in the plan at the end of this volume, where the site of the Victoria and Albert Museum (see page 64) is also indicated.

Access.—The nearest stations to the University are South Kensington (P. and D.) and Gloucester Road (P. and D.), the former being a little the nearer. Omnibuses from Trafalgar Square by way of Piccadilly pass, some the north end and some the south end of Exhibition Road, near South Kensington Station. The University is about twenty minutes' walk across Kensington Gardens from Paddington Station (G.W.R. and M.) and about a quarter of an hour from Lancaster Gate Station (C.) and Queen's Road Station (C.).

PRINCIPAL MUSEUM AND PUBLIC PICTURE GALLERIES AND FINE ART COLLECTIONS.

The National Collections maintained in London are displayed in many separate buildings, all with few exceptions in the West End.

THE BRITISH MUSEUM.

The British Museum was founded in 1753 by an Act of Parliament, which provided "for the purchase of the museum or collection of Sir Hans Sloane and of the Harleian collection of manuscripts, and for providing one general repository for the better reception and more convenient use of the said collections, and of the Cottonian Library and of the additions thereto."

Sir Hans Sloane, who was President of the Royal College of Physicians of London from 1719 to 1735, and who in 1727 succeeded Sir Isaac Newton in the presidency of the Royal Society, an office he retained until 1741, formed during his long and prosperous career a large and miscellaneous collection. Sloane was born in 1660, and was a friend of William Courten, a naturalist, who made a very large

collection which, in about 1684, he displayed in a set of rooms in the Temple. At his death in 1702 Sloane acquired the whole collection. In 1742 it was, together with the numerous objects he had himself brought together, transferred to the Manor House at Chelsea. Sloane had purchased the manor of Chelsea in 1712, and in 1721 had founded, for the Society of Apothecaries, the botanic garden there. At the time of his death in January, 1753, the collection at the Manor House, Chelsea, consisted of "Books, manuscripts, prints, medals, and coins, ancient and modern, seals, cameos, and intaglios, precious stones, agates, jaspers, vessels of agate and jasper, crystals, mathematical instruments, drawings, and pictures." It included numerous zoological and geological specimens, as well as an extensive herbarium of dried plants, the greater part of which had probably been formed by Courten; this herbarium is still preserved. The Act of 1753 appointed Trustees to administer the Museum, and provided that the sum of £20,000 should be paid to Sloane's family, according to the terms of his will, although his collection is said to have cost him over £50,000.

The Trustees in 1754 purchased Montagu House, Bloomsbury, to which the several collections mentioned above were removed. The museum, henceforth called the British Museum, was opened on January 15th, 1759. In 1845 the classical building by Sir Robert Smirke, with which most people are familiar, was completed, and in 1857 the great circular reading room was erected. The ground is being cleared on the north side for a large extension of the present building.

The Museum is open free from 10 a.m. to 6 p.m. on every Week-day and on Sunday afternoons.

The Reading-room and Print-room are open to the inspection of visitors, but those desiring to use them for study or reference must obtain a ticket, by making written application to the Principal Librarian.

Access.—British Museum Station (C.), Holborn Station (P.); omnibuses traversing Oxford Street.

THE BRITISH MUSEUM OF NATURAL HISTORY.

In January, 1860, the Trustees resolved that it was expedient, owing to the rapid growth of all the collections, to remove the natural history collection from the British Museum in Bloomsbury, and three years later part of the site of the International Exhibition at South Kensington was purchased, and upon it was erected, between the years 1873 and 1880, the imposing building, the largest modern building in which terra-cotta has been exclusively used in external façades and internal wall surfaces and decorations, which now faces Cromwell Road. The return east and west wings, planned by the architect, the late Mr. Alfred Waterhouse, R.A., have not yet been erected.



Sir HANS SLOANE, M.D.

Born 16th April, 1660.

Died 11th January, 1753.

In the centre of the front, which is 675 ft. long, is the main entrance, approached by a flight of steps. Passing across the corridor, the visitor enters the great central hall where the statue of Sir Richard Owen at the south end faces that of Charles Darwin at the north, while in the bay on the east is the fine seated marble statue of Huxley unveiled ten years ago. In a smaller bay on the west side is a bust of the late Sir W. H. Flower, the first Director of the Museum. Most of the cases in this hall, which is under the direct supervision of the Director, Mr. L. Fletcher, F.R.S., illustrate general laws or points of interest in natural history, which could not be so appropriately illustrated within the systematic collections of the departmental series. Among the general subjects thus dealt with are variation under domestication as exhibited in pigeons, fowls and canaries; changes of plumage according to sex and season as shown by ruffs and reeves; seasonal changes of plumage as shown by wild ducks; adaptation of colour to surrounding conditions and the protective resemblance of desert animals to their surroundings; mimicry, albinism and melanism, and intermediate forms in nature, and Mendelism. There is also here displayed a most interesting and instructive series of large models of mosquitos and of the tsetse flies, with still more enlarged models of mammalian blood corpuscles showing the parasites by which they are infested in the diseases communicated by mosquitos and tsetse flies—malaria and sleeping sickness. The five bays on each side of the hall contain the introductory or elementary collection illustrating the more important points in the structure of certain type of animal and plant life. At the north end of the hall is the principal staircase, and behind it the north hall, which contains examples of domesticated mammals.

The west wing contains in its main gallery on the ground floor the collection of birds, and in the corridors opening off it, those of shells, reptiles, insects and fishes; on the first and second floors of this wing are the collections of mammals, including man. The whole of the left side of the second floor is devoted to anthropology, and here will be found a most instructive case exhibiting in a striking manner the structural differences distinguishing man-like apes from man, and the different types of human skulls, and methods of measuring them.

The ground floor of the east wing is devoted to the palaeontological collections—the first floor to mineralogy and the second to botany. The departments of zoology, geology, mineralogy and botany are each supervised by a keeper, a staff of assistant keepers and assistants.

Besides the exhibits mentioned above, which form the permanent collection, there is now displayed at the northern end of the central hall a collection of memorials of Charles Darwin, an exhibition of exceptional interest, and quite unique. The year 1909 was both the

hundredth anniversary of Darwin's birth and the fiftieth of the publication of his most famous work, "The Origin of Species." To celebrate the double event the trustees of the museum gave instructions that an exhibition should be prepared, in which should be shown relics of the great naturalist and specimens illustrative of various themes in his writings. The specimens are contained in nineteen cases, which have been placed in or adjoining Bays VI. to IX. on the right-hand side of the central hall. Some of the cases are part of the permanent collection, and have already been alluded to—namely, those containing specimens to illustrate variation under domestication, changes of plumage according to sex or season, mimicry, etc. But the remainder contain objects which are for the most part the property of private individuals. The exhibition comprises: (1) Manuscripts, books, and instruments written or used by Darwin. Perhaps the most interesting of the manuscripts are the statement by Darwin, then a young man of 22, detailing his father's objections to his acceptance of the appointment of naturalist to the *Beagle* expedition, and his uncle Josiah Wedgwood's tateful reply. There are several manuscript notebooks, and three or four microscopes, which nowadays appear humble enough. (2) Portraits, sketches, and medals, amongst which are several portraits of Darwin at different ages. (3) Fossil bones collected by Darwin during the voyage of the *Beagle*. These have been lent by the Royal College of Surgeons. (4) Specimens of barnacles and corals which were the subject of study by Darwin. (5) Various other specimens collected by him or connected with his work. (6) Specimens illustrating not only his discoveries in general, but also actual passages in his published writings, more particularly the "Origin of Species." References are given to the places in Darwin's books where the subject illustrated is dealt with. To the naturalist these are, perhaps, the most interesting exhibits. (7) Specimens illustrating Darwin's researches on plants. Every member of the Association who takes even the slightest interest in the problems of evolution—and who does not?—is strongly advised not to miss visiting this exhibition.

The Museum is open free on week days from 10 a.m. to 7 p.m., and on Sundays from 2.30 p.m. to 7 p.m.

Access.—As to University of London and Imperial College.

THE MUSEUM OF THE ROYAL COLLEGE OF SURGEONS.

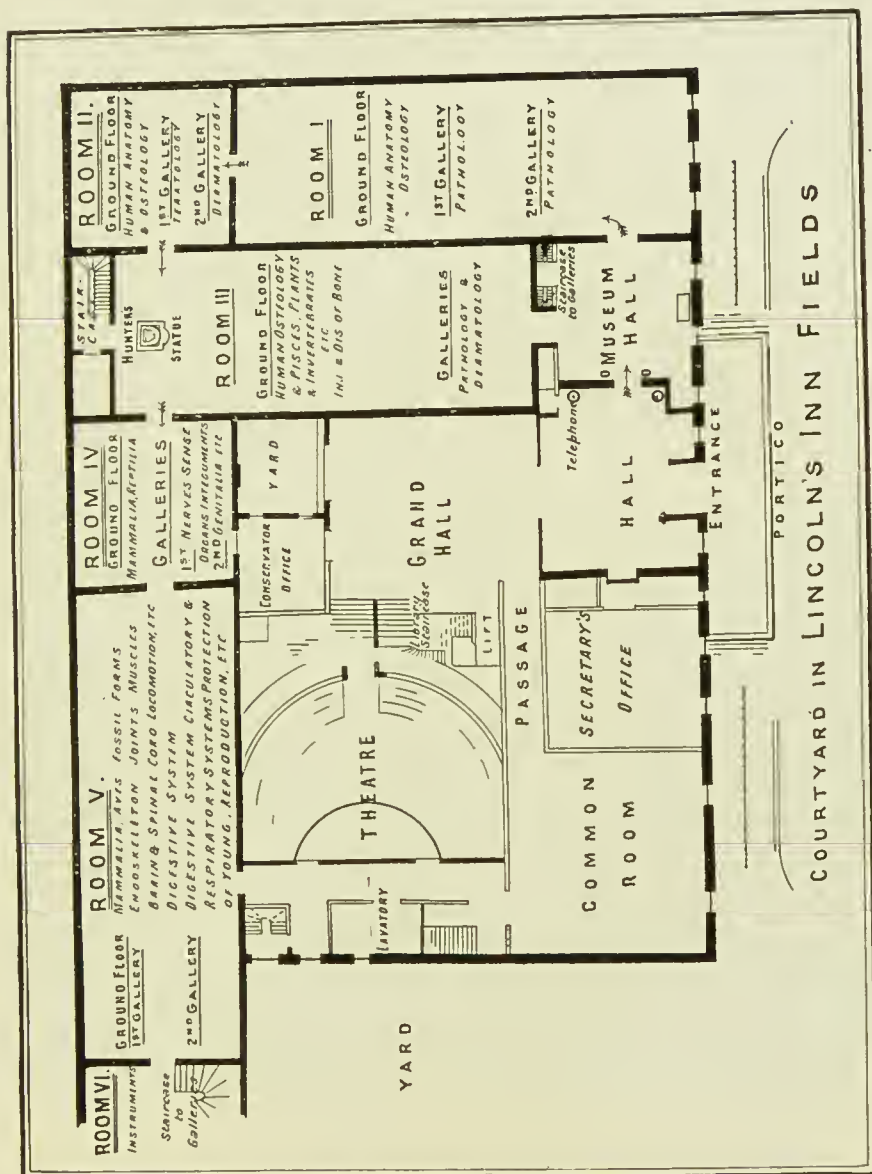
Visitors to the museum of the Royal College of Surgeons, on the south side of Lincoln's Inn Fields, W.C., will find that the museum itself, and especially its surroundings, have undergone considerable alteration since the meeting of the British Medical Association in London fifteen years ago. The shums of Clare Market have been cleared away, and a new great thoroughfare, Kingsway, cut from Holborn to

the Strand, gives free and easy access to the south-west corner of the great square in which the museum stands. The means of reaching the museum have been enormously improved: the Holborn Station of the Brompton and Piccadilly Tube Railway is only 300 yards away, so that members of the Association could reach the museum from the meeting rooms at South Kensington in twenty minutes. The Temple Station on the District Railway, and the British Museum Station on the Central London Tube Railway, are also conveniently situated for the museum.

The chief changes in the museum itself relate to the extension and arrangement of its contents. Just previous to the last meeting of the Association two large rooms—now known as Rooms I. and II.—had been added to the three older rooms—now marked III., IV., and V. Room III. is the original museum finished in 1813, to contain the Hunterian Collection, and the room in which the first conservator, William Clift, and his assistant, Richard Owen, carried out their arduous labour under the critical eyes of Home, Blizard, Abernethy, Astley Cooper, and other famous surgeons of that period. Room IV. was added in 1836; on its floor space are now shown the remarkable collection of gigantic fossil Edentates of South America—*Myiodon*, *Glyptodon*, etc., acquired by the Council of the College in 1835. Room V. was built in 1852; its floor space is devoted to Mammalian Osteology, the arrangement being the work of that master of curators—the late Sir William Flower.

Last year, by extending the museum into the basement, a sixth room was added to accommodate the large and valuable collection formed by the Odontological Society, which is now merged in the Royal Society of Medicine as its Odontological Section. The extent of the Odontological Collection has been increased by numerous specimens added from the College Collection, including many Hunterian preparations.

Other recent extensions and additions to the museum are the following: The Nubian Pathological Collection, consisting of 500 specimens illustrating the diseases of the ancient inhabitants of Nubia. A historical cabinet, containing specimens illustrating curious methods of embalming and mummification, such as the body of Mrs. Van Butchell, wife of a famous Georgian quack, which was embalmed by Drs. William Hunter and Cruickshank; instruments used in past times for restraining the insane, and others for maintaining chastity; specimens illustrating the diseases of distinguished personages, such as preparations alleged to have been obtained at the post-mortem examination of Napoleon the Great. Those interested in specimens of historical worth will find the anatomical plates made for John Evelyn at Padua in 1646, and described by him in his diary, displayed in Room II., and still in a remarkably good state of preservation.



It is computed that a sum of £500,000 has been spent in building and maintaining the museum and in collecting and preserving the 62,000 specimens within its walls. Of that sum, £57,000 has been granted by Government; the remainder has been provided out of the funds of the Royal College of Surgeons of England. Many of its most valued possessions are the gifts of private donors. The collection which forms the foundation of the museum was all the savings and fortune left by Hunter for the maintenance of his family.

Members of the Association, especially those concerned with museum organisation, will be interested to see the manner in which a card-catalogue system is being applied to the collection. Each specimen is being supplied with a descriptive card giving its history and characters. The cards are kept in specially contrived boxes, which are placed on the museum shelves with the specimens, and are easily accessible for reference. A series of index cards, to serve the same purpose for the museum as an index does for the contents of a book, is being prepared, and will be placed for consultation in the hall of the museum, so that the visitor may readily discover the position and number of specimens representing whatever morbid condition he may wish to investigate. More than half of the museum is already furnished with specimen cards, but it is estimated that the preparation of the index cards will occupy a period of three years at least.

The following table shows the composition of the Hunterian Collection as handed over to the Corporation of Surgeons at the end of 1799, contrasted with its condition at the present time. The list also gives an idea of the museum contents:—

	Hunterian Collection, 1799.	Museum Collection, 1910.
Pathological and Teratological specimens (Rooms I. II. III.)	1,927	9,566
Calculi (Room III.)	536	2,095
Specimens illustrating function (physio- logical series)	4,362	10,429
Human anatomy and Osteology	—	4,902
Comparative Osteology	965	8,984
Zoological preparations (mostly of inver- tebrates)	5,677	9,041
Microscopical preparations	215	12,699
Surgical instruments (used in past times)	—	806
Odontological collection	—	4,000
	13,682	62,531



JOHN HUNTER.

Born 13th February, 1728.

Died 16th October, 1793.

The Pathological Curator, Mr. Shattock, assisted by Dr. Cecil Beadles, has commenced the Herculean task of revising and re-arranging and recataloguing the Pathological Collection. The revision of the Gynaecological Series of this collection is in the hands of Mr. Alban Doran. The pathological specimens are to be arranged in the two great divisions adopted by Sir James Paget in former editions of the catalogue—namely, General Pathology and Special Pathology. Under General Pathology are grouped those specimens which illustrate atrophy, hypertrophy, inflammation, grafting, repair, necrosis, gangrene, tumours, etc.; under Special Pathology, specimens illustrating the diseases of each organ or part. In the new arrangement the section of General Pathology is to be greatly extended. The beautiful preparations made by Mr. Shattock some years ago, to illustrate infectious organisms and processes, are to be included in this section: so are those specimens which illustrate the results of experimental pathology, such as the very instructive series recently presented by the Cancer Research Association, and the series showing the results of castration and other experimental lessons. When the rearrangement is completed, the general pathological section will form an unrivalled exemplification of the morbid processes of the human body.

The collection of Entozoa has been revised, extended, and re-described by Dr. Robert T. Leiper, of the London School of Tropical Medicine.

A special booklet, to serve as a guide to visitors, is in course of preparation. Those interested in Hunterian relics and specimens will find the museum staff very willing to serve as guides to the various parts of the museum in which they can be seen and examined.

THE MUSEUM OF ST. BARTHOLOMEW'S HOSPITAL.

The museum of St. Bartholomew's Hospital was formally inaugurated in 1726, and the collection still contains several specimens which were prepared by or belonged to Percival Pott, surgeon to the Hospital from 1749 to 1787. One of these is a congenital hernia (No. 2138), probably prepared before 1756, when Pott published an essay on this subject—his first work; the other (No. 1097) a specimen of Pott's disease of the spine, of which specimen we are told, on the authority of Abernethy, "that it was one of the first cases which showed the benefit of issues in the treatment of the disease." A large accession to the museum was due to Abernethy, who became assistant surgeon on the retirement of Pott. In April, 1821, while urging the governors to rebuild the anatomical theatre, he offered to present to the hospital, in trust for the medical school, his own large collection of preparations, "amounting in number to

several thousands." A month later he and Edward Stanley made a formal tender of the preparations and all the other property in the museum. The offer was accepted and a catalogue prepared, which was published in 1831.

In 1839 James Paget became curator. Of the many legacies of his curatorship one of the most important was a new catalogue published in 1846. Sir James Paget was succeeded by Mr. (afterwards Sir William) Savory, who brought out in 1862 a further catalogue, which remained in use till 1881. In that year the preparations were transferred to the present museum, a large building situated over the library, and the transfer was made the occasion of a re-arrangement and re-cataloguing of the pathological specimens, the work being carried out by Mr. F. S. Eve, the then curator, and his successor, Mr. Bowlby. Of late years attention has been concentrated upon the pathological side of the collection, which now include some 10,000 specimens, casts, calculi, and drawings. Descriptions of the specimens are supplied by means of scrap-book catalogues, into which are pasted printed descriptions of specimens added from year to year.

THE MUSEUM OF CHARING CROSS HOSPITAL.

The present museum of Charing Cross Hospital was built in 1881, when the Medical School moved from the hospital buildings to its new home in Chandos Street. For many years previously the collection of pathological specimens had been housed in the hospital. Originally brought together by Mr. Howship, these specimens passed under the curatorship of Mr. Canton, who, in addition to increasing their number, enhanced the value of the collection by preparing the first MS. catalogue. His descriptions, together with those of his successors, remained in manuscript for some years, but after the removal the collection was found to have become so large and varied that the Council of the Hospital decided on the publication of the first printed catalogue: this appeared in 1888. The concluding years of last century marked a period of further activity, when the whole of the collection was revised by Dr. Hunter, improved methods of mounting were introduced, and some 1,300 additional specimens added. In 1902 a new edition of the catalogue was printed, and more recently still the entire series has been again revised, the older specimens remounted, and sectional catalogues corresponding to the different groups of specimens in the museum have been prepared.

Charing Cross Hospital Museum was one of the first, if not the first, in London to adopt the formalin method of mounting, which, though somewhat more costly than the older methods, preserves the natural colours of the tissues in a most satisfactory and

permanent manner. The increased interest and teaching value of a specimen thus prepared will be appreciated by every practitioner who recalls the bleached and shrunken spirit preparations of his student days. Some of the formalin specimens mounted nearly twenty years ago are to-day as fresh and bright as if they had just been brought from the post-mortem table. Another useful feature of the museum is a cabinet of microscopic slides. Sections of every pathological specimen destined for the museum are cut, and a slide, numbered to correspond with the specimen, is entered in the cabinet. The earlier volumes of the post-mortem records of the hospital are indexed separately, but recently the card index system has been introduced by the present Curator, Dr. David Forsyth, so as to facilitate the use of the valuable pathological material in the reports. On the ground floor Towne's models are placed, and here also is a collection of models prepared by the Curator of the Dental Museum. In one of the ground floor compartments are two cases containing a collection of surgical and other instruments of historical and antiquarian interest; they have been arranged by Dr. F. W. Cock, who most generously presented many of the most valuable of them to the museum, and at whose instigation the collection was started. The whole museum has been specially arranged with a view to the needs of students of pathology, and it amply fulfils its purpose.

THE MUSEUM OF ST. GEORGE'S HOSPITAL.

The museum of St. George's Hospital owes its origin to the zeal and generosity of the eminent surgeon, Sir Benjamin Brodie. In his autobiography he tells us that in the year 1812 he formed a museum of specimens illustrative of surgical pathology in a house in Great Windmill Street, "being at first content with the preservation of such specimens as he was able to prepare with his own hands." Later he obtained the help of Dr. James Somerville, and in the course of a few years became possessed of a collection of preparations which was admirably adapted for the intended purpose of illustrating his lectures. In 1829 he presented the whole of this collection to the governors of the hospital for the use of the medical school. Soon afterwards it was found desirable to have an anatomical theatre, museum, and lecture rooms, situated in one building, and under the entire control of the hospital staff. Suitable premises were therefore obtained in Kimmerton Street, and here was the first home of the hospital museum.

From this time onward the collection has been added to partly by the labours of successive curators and partly by the donation of private collections and specimens. In 1852 the late Mr. Caesar Hawkins presented the whole of his collection, and his letter conveying the

gift is preserved in the museum. In 1866, the site of the present school buildings was leased by the late Duke of Westminster to the governors at a nominal rent. The present museum building was completed and opened in 1868.

A catalogue of the specimens was published by the late Dr. John Ogle and the late Mr. Timothy Holmes in 1866, and a supplementary catalogue in 1882 by Sir Isambard Owen, who also rearranged and classified the collection. Since 1882 the catalogue has been kept in manuscript.

In addition to the donors already referred to, mention must be made of the names of Sir Benjamin Brodie, second baronet, the late Dr. Seymour, and of Dr. Howship Dickinson, who have given collections of water-colour drawings: and of the late Mr. Stone, sometime lecturer on midwifery at the hospital, who gave his valuable collection of embryological and obstetrical specimens.

In the museum are preserved John Hunter's chair and dissecting table, autographs of Edward Jenner and the skin of the cow from which he took the first vaccine matter, as well as other interesting and historical relics.

The number of preparations is at present about 6,000, exclusive of the histological collection which has recently been formed. In the Curator's Room are preserved the post-mortem and case books which date back to January 1st, 1841.

THE GORDON MUSEUM, GUY'S HOSPITAL.

The present museum was opened in 1905, and the splendid building in which the specimens are now housed was the gift of Mr. Robert Gordon, a governor of the hospital.

The Guy's museum dates its commencement from the eighteenth century, a considerable number of preparations being in existence in 1804, as shown by the catalogue of that date. These specimens, and others collected later, formed the nucleus of the new museum opened in 1825, of which Dr. Hodgkin was appointed curator; his catalogue, published in 1829, contained descriptions of about 3,000 preparations. Many remarkable specimens were put aside in those early days, as, for example, a piece of muscle containing white specks which were the first recognised preparations of *Trichina spiralis*: portions of brain tissue with supposed tuberculosis deposits, later recognised to be syphilitic in origin; organs likened to bacoon, now known to be the result of lardaceous disease; and many others.

The beautiful wax models of dissections of the human body and of diseases of the skin were executed by Mr. Joseph Towne. Towne brought a model, a small human skeleton, made when he was 17 years of age, to show to Sir Astley Cooper, who, recognising the skill of the workman, sent Towne with a letter of recommendation to

Mr. Harrison, the treasurer of the hospital, with the result that in 1826 Towne was appointed modeller to the hospital; the letter and model referred to are in the museum. The models of the dissections of the human body were made from dissections by Mr. John Hilton when demonstrator of anatomy; most of the models of the diseases of the skin were executed at the instigation of Dr. Addison. In all Towne made more than a thousand models for the museum, working there from the year of his appointment until his death fifty-three years later.

The museum has grown until it contains, in addition to the models, some 6,000 pathological specimens, which in great part have been recently remounted and recatalogued, or are undergoing the process—the medical section is finished. In addition there are some 2,000 drawings and paintings of various diseases.

The present Gordon Museum is divided into four large compartments, with central and side staircases. Two galleries run round each compartment; the shelves are painted white, and have a black background, as this was found to be the most suitable arrangement for showing the specimens to advantage. The medical preparations occupy the galleries of two of the sections, the obstetrical and gynaecological, and the surgical specimens, are placed in the galleries in the other two sections.

MUSEUM OF THE LONDON HOSPITAL MEDICAL COLLEGE.

The museum of the London Hospital Medical College, like the Medical College itself, owes its origin mainly to Sir William Blizard, Surgeon to the London Hospital, 1780-1833, and President of the Royal College of Surgeons. It was in August, 1781, that Sir William Blizard obtained permission to deliver courses of lectures on anatomy and surgery in the demonstrating theatre of the hospital, and in 1783 a special building was erected at the east end of the hospital to serve as a medical school. The cost of the building was largely defrayed by Sir William Blizard, who was the leading spirit of the enterprise, and whose specimens obtained from the operating theatre and post-mortem room formed the nucleus of the Museum. In 1804 a new building was erected close to the hospital, and the specimens, already of great value, were housed in a separate room in the new Medical College. During the alterations that took place in 1871 one of the chief was the increase of the size of the museum, which was then enlarged to its present dimensions.

The object of the museum has always been to collect anatomical and pathological specimens of teaching value and not merely the bizarre and extraordinary, and the school has been extremely fortunate in having a succession of curators who have had this object

clearly in view. Amongst the collections of specimens especially noteworthy are those of diseases and injuries of the testis collected by Mr. Curling (1834-69). Dr. Ramsbotham (1854-69) added a collection of gynecological specimens and specimens of the malformation of the fetus and monstrosities, whilst Mr. Little (1862-69) presented to the museum over 100 plaster casts illustrating the deformities of the foot, hand, and chest.

The museum contains a large number of drawings and water colours illustrating diseases of the skin, which it owes chiefly to the energies of Sir Stephen Mackenzie and Sir Jonathan Hutchinson. The latter still continues to take great interest in the museum, and is one of the trustees of the Witherby Fund, which was given by the Misses Witherby for museum purposes in memory of their brother. The anatomical side of the museum chiefly consists of dissections made by students each year for the dissecting prizes, but Mr. Keith, now Conservator of the Museum of the Royal College of Surgeons, during his curatorship added many beautiful anatomical and embryological dissections. Amongst specimens of special interest are the skeleton and plaster casts of the "Elephant Man," added by Sir Frederick Treves; the skeleton of the Irish Giant, articulated by Mr. Openshaw; and the photographs of the patients by which Sir James Paget illustrated his original paper on osteitis deformans.

In 1890 a catalogue of the specimens contained in the museum was printed and published, the chief bulk of the work being done by Mr. Openshaw, who was then Curator. In 1907 Mr. Keith began to recatalogue the specimens, and this work, under the direction of the present Curator, Mr. Russell Howard, is now nearly complete.

The collection of the Pathological Institute comprises at present about 1,500 specimens. The specimens are put through the Kaiserling process, and are then placed in large tanks of glycerine and water. There is a card index kept of these specimens, and in this is given the reference to the record of autopsies or of specimens sent for investigation from the theatres. A special record of the autopsies for each year is kept in a book in which is entered the summary of the macroscopic changes in each organ, of the microscopic findings, and the clinical history. The record of the specimens sent for investigation from the theatres is kept in a similar manner. This collection of specimens can be examined by permission of the Director, Dr. H. M. Turnbull, or the Assistant Director.

THE MUSEUM OF THE MIDDLESEX HOSPITAL.

The museum of the Middlesex Hospital forms the only remaining part of the original buildings of the medical school as founded by Sir

Charles Bell in 1835. Bell's original collection of specimens had been stored in the Windmill Street school, the famous school founded by Hunter, destined to be the immediate predecessor of the Middlesex School. In 1825 Bell's collection was disposed of to the Edinburgh College of Surgeons, and he straightway commenced, as he tells us in his letters, "if not tooth and nail, at any rate very seriously to commence a new one."

The collection at the Middlesex Hospital at first consisted of the preparations belonging to Sir Charles Bell and the lecturers whom he brought with him from Great Windmill Street. Among the specimens now in the museum belonging to this period may be mentioned the beautiful series of wax models illustrating the development of the embryo of the chicken, and the magnificent series of anatomical and pathological water-colour drawings made by Sir Charles Bell, himself an artist of no mean power. On the death of Dr. Sweatman the whole of his collection, amounting to 660 preparations, was purchased for 350 guineas and added to the museum. Among the specimens illustrating diseases of arteries is preserved the first aortic aneurism treated by the introduction of wire. The operation was performed by Mr. Moore in 1864. The patient, after surviving five days, died with pyæmic deposits in the kidneys. Sir William Flower was for some time curator, and the zoological collection, illustrating the chief facts of comparative anatomy, was almost entirely made by him.

Dr. Spenceer Cobbold, F.R.S., the eminent helminthologist, succeeded Sir William Flower in the curatorship, and enriched the Museum by the addition of his collection of parasitic worms. To this period also belongs the fine series illustrating typhoid ulceration, presented by Dr. Murchison, and to a somewhat later period the classical series of specimens presented by Dr. Greenhow, to illustrate changes in the lungs in the pneumoconioses. A new catalogue was prepared in 1869 by Dr. Cayley, who, during his curatorship, added the interesting group of specimens illustrating the changes in the bones in osteitis deformans. Dr. Kingston Fowler, with the help of Mr. J. Bland-Sutton, in 1882 prepared the large catalogue at present in use, which has been further enlarged by the catalogue of "Additions," prepared by Dr. A. F. Væleker in 1907. The museum is now under the competent direction of Dr. C. Ernest Lakin.

The museum contains the busts of many distinguished men connected with the hospital and school, and there are medallions of Sir Charles Bell and Sir John Burdon-Sanderson. The skeletons of Landseer's "Dignity and Impudence" have found a home in the museum, while among the specimens of more medical interest may be mentioned the models of skin diseases from the collection of Sir

Erasmus Wilson, a former member of the hospital staff. The first renal calculus to be removed by nephrolithotomy will be found among the calculi, and the fine series of specimens illustrating the surgical diseases of the kidney, at present arranged on the shelves in the centre of the museum, were presented by Sir Henry Morris. The museum possesses a fine series of skulls of interest to the anthropologist, and this section has recently been enriched by the addition of several models of the skull of prehistoric man and allied genera. Another section of the museum is devoted to anatomical preparations, and a number of old surgical instruments and appliances are preserved in the curator's room. The post-mortem records date from 1850.

THE MUSEUM OF THE ROYAL FREE HOSPITAL.

The Royal Free Hospital museum is of comparatively recent date. In 1888, some years after the London School of Medicine for Women had become attached to the hospital, the need was urgently felt for developing the museum and making it available for teaching purposes and a superintendent and curator were appointed.

The present museum and pathological laboratories were erected at a cost of about £2,000, the greater part of which was generously defrayed by Mrs. Webb, as a memorial to her daughter, Miss Mabel Webb, who for two years before her death had been an enthusiastic curator, and with whom the scheme and plans for the new buildings had originated. The museum was formally opened by Lady Reay in February, 1900. It contains rather more than 1,800 specimens, the majority mounted by the Kaiserling method; a few, added this year, are put up in liquid paraffin. In 1904 the specimens were regrouped and catalogued, as far as possible, on the plan of the Royal College of Surgeons Museum. The most complete of the 40 series into which the specimens are divided is that illustrating diseases of the thyroid gland, which includes 117 examples. The series of injuries and diseases of the bones and joints comprise 276 specimens; for this portion of the museum a separate descriptive catalogue has been written by Mr. E. W. Roughton for the use of students. The museum also contains a collection of plaster casts, a series of bacteriological cultures, and a set of slides illustrating morbid histology.

THE MUSEUM OF ST. THOMAS'S HOSPITAL.

The pathological collection of St. Thomas's Hospital contains over 3,000 preparations, and illustrates all the morbid lesions of

importance met with in the various organs of the body. The present descriptive catalogue had been entirely rewritten by Mr. S. G. Shattock.

The marble bust of Morgagni in the museum was the gift of an Italian committee, which included the chief professors at the various Italian universities. It was formally presented to the hospital by the Italian Ambassador in October, 1899.

The collection includes many specimens of historical interest, such, for example, as those used by Sir Astley Cooper to illustrate his works on dislocations and fractures, on hernia, and diseases of the testis; as well as two preparations showing the result of ligature of the abdominal aorta, and Mr. Travers's preparations exhibiting the natural process of repair of injuries of the intestines, and results of the experimental ligature of arteries. The section of fractures contains numerous examples of gun-shot injuries obtained from cases under the care of Sir William MacCormac during the Franco-German War. A special feature of the museum is the selection from the general collection of a complete series of type specimens illustrating medical, surgical, and gynecological pathology. These are placed on the front floor of the museum, and of each series a card catalogue is maintained.

THE MUSEUMS OF UNIVERSITY COLLEGE AND UNIVERSITY COLLEGE HOSPITAL MEDICAL SCHOOL.

The pathological museum was originally housed in University College. The nucleus of the collection consisted of a large series of surgical specimens purchased from Sir Charles Bell by the College. By subsequent additions made from year to year by the Professors, and gifts from friends of the College, the collection has gradually been increased until it now consists of over 5,000 specimens. Of the more noteworthy contents of the museum may be mentioned the collection of water-colour paintings of pathological subjects, 1,100 in number, made by Sir Robert Carswell when he held the Professorship of Pathological Anatomy in the College; a portion of the pathological collection of Professor Liston, and a large and very interesting series of old surgical instruments collected by him; an extensive series of vesical calculi, including collections presented by Liston, Mr. Richard Quain, Sir J. E. Erichsen, Mr. James Arnott, and others; and a number of well-executed wax models by Tuson, illustrating diseases of the skin. A catalogue of the surgical series, under the editorship of Mr. Marcus Beck, Mr. S. G. Shattock, and Mr. C. Stonham was published in 1887, and a new edition was issued in 1906. A catalogue of specimens illustrating Medical Pathology, edited by Mr. Charles

Stonham, appeared in 1890, and one illustrating Gynaecology and Obstetric Medicine by Sir John Williams and Mr. Stonham in 1891. Upon the incorporation of University College in the University of London, the Faculty of Medicine was separated from the College, and became incorporated with University College Hospital as a separate school of medical studies. The buildings necessary to carry out this scheme were provided through the munificence of Sir Donald Currie, and in 1907 the Pathological Collection was transferred from University College to the new school buildings in University Street.

The Museum of Anatomy of University College contains nearly one hundred special dissections, illustrating the anatomy of all parts of the body, explained by a series of water-colour drawings. There are also preparations of all the joints and ligaments; the original preparations of the arteries by Richard Quain; a large osteological collection, including many specimens showing the growth, development, and variations in the skeleton; and a large number of valuable casts and models illustrative of the topographical anatomy and the development of the body. The anatomy of the various organs and tissues is further illustrated by nearly 500 illustrations in spirit.

The Museum of Zoology and Comparative Anatomy of University College was, in 1875-6, refitted and arranged under the direction of Sir E. Ray Lankester. It contains a very extensive series of both wet and dry preparations, arranged in zoological order, and carefully selected so as to illustrate all the important variations in the structure of the animal kingdom. The material from which the collection was made is due to the liberality of the late Professor Grant, of the late W. D. Christie, C.B., the late Arthur Grote, the late Sir Andrew Smith, M.D., K.C.B., and other donors; but a large number of the more valuable specimens have been either purchased or presented since 1875. A special series of skeletons and viscera is arranged to illustrate the works of Gegenbaur and Huxley.

The Museum of Botany consists of an extensive series of dry and wet preparations, including collections illustrating the morphology of the vegetative and reproductive organs of flowering plants, and a very fine carpological series, in which the numerous types of fruits are fully illustrated; a series illustrating the chief biological classes of plants—for example, epiphytes, carnivorous plants, climbers, etc.; and systematic collections of Thallophyta, Bryophyta, Pteridophyta, and Gymnospermae. The museum, though of recent formation, contains many of the specimens used by the late Professor Lindley. Many valuable donations have been received from the Royal Gardens, Kew, the Botanical Department of the Natural History Museum, and from former students and others resident in the Colonies.

THE MUSEUM OF THE WESTMINSTER HOSPITAL.

Previous to the building of the Medical School in Caxton Street, Westminster, the collection was housed in the hospital itself. A few of the older specimens remain at the present day; they consist almost entirely of a historical collection of gun-shot injuries from the battle of Toulon, presented by the late Mr. Guthrie, surgeon to the hospital. The collection as it at present exists owes its success to Mr. C. Stonham, who, after collecting some fourteen hundred specimens, prepared a printed catalogue, in which each section is preceded by a brief explanation of the morbid lesions the specimens illustrate; it thus serves as a text-book of systematic pathology. The specimens mounted at that time still form the main part of the surgical section. In recent years, however, the methods introduced for preserving the natural colours of specimens have rendered it possible to replace the old discoloured ones, and to improve more especially the medical section by exhibiting lesions previously impossible. The two thousand specimens now preserved, together with the catalogue and the several descriptive appendices, form a fairly complete picture of the pathological anatomy of disease. The value of the catalogue is enhanced by the clinical and clinico-pathological data referring to each specimen, and cross-references render it possible to find the full particulars of the individual cases in the post-mortem and clinical laboratory records preserved in the hospital. Rarer specimens of pathological curiosities have usually been sent to the museum of the Royal College of Surgeons, as it is considered that the museums of the individual schools should be principally adapted to the needs of the undergraduate. During the past two years the present curator, J. A. Braxton Hicks, M.B., Lond., has added 190 new specimens, and a printed catalogue of these has been prepared.

A recent feature of the collection is the grouping of specimens of medico-legal interest in a separate class, forming a nucleus of what in time ought to develop into a valuable aid to the medical jurist. There is also a useful section containing specimens of gynaecological interest. A special collection of specimens illustrating normal anatomy prepared by the late Mr. Holthouse, senior surgeon to the hospital, is catalogued in a separate work in manuscript.

THE MUSEUM OF PRACTICAL GEOLOGY,

Situate in Jermyn Street, Piccadilly, W., was erected in 1850: it contains a beautiful collection of minerals, metals, and jewels. Also a library.

The offices of the Geological Survey are in the same building.

Open Mondays and Saturdays from 10 a.m. to 10 p.m.; other days from 10 a.m. to 5 p.m. (Closed on Sundays.) Admission free.

ROYAL UNITED SERVICE MUSEUM.

The building in which are now gathered many interesting trophies, was formerly the Banqueting House, Whitehall; from one of its windows Charles I. was led to execution. There is an equestrian statue of the King, near by, facing towards Whitehall.

The Banqueting Hall is very fine; the ceiling was painted on canvas by Rubens, and restored in 1907.

Among the many mementoes, the chief are a large model of the Battle of Waterloo, made by Captain W. Siborne, and covering an immense area; a model of the Battle of Trafalgar, the table on which it stands being made of oak from the "Victory," and part of the main-mast of Nelson's ship is surmounted by a bust of the famous Admiral. The skeleton of Napoleon's noted charger, Marengo, is one of historic interest. Ancient and modern cannon, shells, etc., are exhibited in the Crypt.

Whitehall, S.W., is the thoroughfare lying between Trafalgar Square and Westminster.

Admission to the Museum, 6d. It is open from 11 a.m. to 6 p.m. in summer and 11 a.m. to 4 p.m. in winter.

PARKES MUSEUM.

Situate at 90, Buckingham Palace Road, Parkes Museum of the Royal Sanitary Institute contains various hygienic appliances, also a large library of works relating to sanitation. It is open free, daily, from 9.30 to 5.30, and on Mondays to 8.

THE MEDICAL MUSEUM OF THE ANNUAL MEETING.

In accordance with custom, a medical museum has been organised in connection with the Annual Meeting. The function of this museum is twofold. In the first place, it serves the office of storing those specimens which are required by the readers of papers in the Sections for the purpose of illustrating the subject of the papers, and in the second place, it is intended to depict advances in medicine and the allied sciences within recent years. With regard to the first-named function, little need be said. The specimens shown by the individual members of the various sections have been arranged as far as possible to be readily accessible to the visitor and form a special feature of the museum. The second function has been organised as the result of very careful preparation and forethought. For this purpose the museum has been divided into sections, and each section has been placed under an honorary curator. The list of sections and honorary curators is appended below. In most of the departments special attention has been given to the illustration of

methods. In many cases, it has been found extremely difficult to show methods clearly by means of inanimate exhibits, but the honorary curators have agreed in the most generous manner to demonstrate from time to time the working of these lifeless objects, so that a living idea can be obtained. The arrangement has entailed a considerable amount of preparatory work, as it was felt that with a collection of specimens, diagrams, curves, preparations and other material of a considerable size, the greatest amount of practical value could only be obtained if each segment not only formed an independent entity, but was also in consonance with the contiguous segment.

Special mention should be made of the sections dealing with Protozoology and Tropical Medicine. In view of the increasing importance of the former science to general medicine, it was thought that something approaching a complete series of parasitic protozoa might be exhibited with value to the practitioner. Many of these forms of life, it is true, are not at the present time found in man, but each series illustrates a type, and is of theoretic importance to-day, and will be of practical importance to-morrow. A number of life cycles have been set up, and the visitor will be struck by the extraordinarily excellent nature of the specimens. Over 100 microscopical specimens are on view in these two sections alone.

The museum, which is situated in the Elementary Physics Laboratory in the Imperial College of Science, will be open from 10 a.m. till 5 p.m. on each day, and special demonstrations will be announced at the doors. A catalogue has been compiled and will be distributed to visitors in the museum.

In view of the considerable value of the specimens and preparations in the museum, many of which could not be replaced if damaged, the Committee have found it necessary to make stringent rules for the protection of the same. The electro-cardiograms and other curves, etc., may not be handled, and in examining the microscopical specimens, visitors should only alter the fine adjustment. If the picture is not clear, one of the honorary curators in the museum can be applied to, who will adjust the focus. The specimens themselves may not be shifted.

The following is a list of sections and honorary curators :—

Alimentary system	...	...	Dr. Hertz, of Guy's Hospital.
Anæsthetic section	...	...	Dr. Ada M. Browne, of the Chelsea Hospital for Women.
Bacteriology	...	...	Dr. Henderson Smith, of the Lister Institute.
Cardio-vascular system...	...	...	Dr. T. Lewis, of City of London Hospital.
Cancer Research...	...	...	Dr. Murray, of the Imperial Cancer Research Fund.

General Surgical Pathology	...	...	...	Dr. Braxton Hicks, of the Westminster Hospital.
Genito-urinary system	...	...	...	Dr. Swift Joly, of St. Peter's Hospital.
Gynaecology	...	...	...	Dr. Helen Chambers, of the Royal Free Hospital.
Laryngology	...	...	...	Dr. Harmer, of St. Bartholomew's Hospital.
Neurology	...	...	...	Dr. Wilson, of the Queen Square Hospital.
Ophthalmology	...	...	...	Dr. Mayou, of the Paddington Green Children's Hospital.
Otology	...	...	...	Dr. Sydney Scott, of St. Bartholomew's Hospital.
Physiological and Pathological Chemistry	...	...	...	Dr. Ryffel, of Guy's Hospital.
Proto-zoology	...	...	...	Miss Muriel Robertson, of the London University.
Radiology	...	...	...	Dr. Ironside Bruce, of Charing Cross Hospital.
Respiratory system	...	...	...	Dr. Lakin, of Middlesex Hospital.
Tropical Medicine	...	...	...	Dr. Hutton, of the London School of Tropical Medicine.
Tuberculosis	...	...	...	Dr. Petrie, of the Lister Institute.

BOTANIC AND ZOOLOGICAL GARDENS.

ROYAL BOTANIC GARDENS.

Kew.

The Royal Botanic Gardens at Kew are maintained by the Nation for the advancement of botany and horticulture in their scientific and practical aspects. The Director is Lieutenant-Colonel Prain, C.I.E., F.R.S., Indian Medical Service, formerly Director of the Botanical Survey of India, and Superintendent of the Royal Botanic Gardens, Calcutta. The Gardens, which cover a large extent of ground, are bounded on the north-west by the river Thames, and on the west abut on the Old Deer Park. They are beautifully laid out as pleasure grounds, containing fine avenues, shady walks, brilliant beds of flowers, flowering shrubs, and smooth lawns. Palm houses and conservatories, museums, temples, and rockeries, add diversity to the surroundings. There is a delightful herbaceous garden, and, at the southern end of the grounds, a Chinese pagoda. The most noticeable features are the large Palm House, the Temperate House, the Water Lily House, the Orchid Houses, and the house for the *Victoria Regia*, which usually flowers about the end of July; the three Museums, the Herbarium, and the North Gallery, containing a wonderful collection of flower studies, made by the late Miss North in many parts of the world, and presented by her to the Nation in 1882. Kew Palace is in the northern part of the gardens, near the main entrance. It was a favourite residence of George III. Queen Charlotte died here in 1818. The Arboretum, covering 178 acres near the river, contains a large lake, and beyond this, bordering on the Old Deer Park, are the grounds of the Queen's Cottage, to which the public are admitted.

Access.—Kew, Surrey. Travel by District, North London, or South Western Railways; or by Central London Tube to Shepherd's Bush or to Hammersmith (D. or P.), thence by electric tram to Kew Bridge.

The Gardens are open daily from 10 a.m. to dusk. Sundays from 1 p.m. Admission free. (The Palace is open 10 to 6 daily, Friday excepted.) There is a refreshment pavilion near the Chinese Pagoda.

ROYAL BOTANIC GARDENS.

Regent's Park.

These Gardens, maintained by the Royal Botanic Society, are nearly twenty acres in extent, and comprise the whole of the Inner Circle of Regent's Park; they contain growing collections of medicinal, economic and water plants. There is also a museum.

Admission, 1s. on Monday and Saturday; Tuesday, Thursday and Friday, on presenting an order of admission given by a Fellow of the Botanical Society. Foreigners are admitted on application to the officials, Regent's Park, N.W.

ZOOLOGICAL GARDENS.

The Gardens of this name, more generally known as 'The Zoo,' are maintained by the Zoological Society of London; they occupy about thirty-one acres in the northern part of Regent's Park, being in three divisions, the North Garden, the Middle Garden and the South Garden. The houses of the elephants and the larger animals generally are in the middle portion; bears, lions, monkeys, reptiles, etc., are in the southern portion; and in the northern part, which borders the Regent's Canal, are cranes, owls, and other birds.

The Gardens are open daily from 9 a.m. until sunset. Admission is, except on Mondays, when it is 6d. On Sundays, only by an order from a Fellow of the Society.

Access. The Gardens may be reached by train to St. John's Wood Road or Portland Road Stations (Metropolitan Railway), or by the Bakerloo Tube to Regent's Park Station (all these stations are about twelve minutes' walk from the Gardens), or by omnibus from Oxford or Piccadilly Circus.

PICTURE AND FINE ART GALLERIES

NATIONAL GALLERY.

Trafalgar Square.

The National collection of all schools of painting.

Open free on Monday, Tuesday, Wednesday and Saturday from 10 a.m. to 6 p.m. and on Sunday from 2 to 6 p.m. On Thursday and Friday (Students' days), open from 11 a.m. to 6 p.m. Admission 6d.

Access. Leicester Square Station (P. and H.); Trafalgar Square Station (H.); Charing Cross Station (H. and H.) and Omnibuses traversing Trafalgar Square.

NATIONAL PORTRAIT GALLERY.

St. Martin's Place, Trafalgar Square (adjoining National Gallery).

Open free on Monday, Tuesday and Saturday, from 10 a.m. to 6 p.m., and on Sunday from 2.30 to 5.30 p.m. On Thursday and Friday (Students' days), open from 10 a.m. to 5 p.m. Admission 6d.

Access. As for National Gallery.

NATIONAL GALLERY OF BRITISH ARTS (TATE GALLERY).

Millbank, S.W.

A collection of modern British Pictures, founded by the gift of upwards of sixty pictures by the late Sir Henry Tate, who also defrayed the cost of the building (opened in 1897). It is notable for the works by Turner, Watts, and Walker which it contains.

Open free on Monday, Thursday, Friday and Saturday, from 10 a.m. to 6 p.m., and on Sunday from 2 to 6 p.m. On Tuesday and Wednesday (Students' days), open from 11 a.m. to 6 p.m. Admission 6d.

Access.—The building, which is on the Millbank Embankment, between the Royal Army Medical College and the London Military Hospital, may be reached by tram from Victoria (D.) or from Trafalgar Square by motor and horse omnibuses.

THE WALLACE COLLECTION.
Hertford House, Manchester Square.

A collection of Pictures of various schools, and of armour, china, furniture and other works of art bequeathed to the nation by Sir Richard Wallace.

Open free on Monday from noon to 6 p.m. and on Wednesday, Thursday and Saturday from 10 a.m. to 6 p.m., and on Sunday from 2 to 6 p.m. On Tuesday and Friday (Students' days), open from 10 a.m. to 6 p.m. Admission 6d.

Access.—Bond Street Station (C.); Baker Street (M. and B.): by omnibuses (motor and horse) traversing Oxford Street. From South Kensington by omnibus or Piccadilly Tube Railway to Hyde Park Corner, thence by Baker Street omnibuses to Lower Berkeley Street, Portman Square.

ROYAL ACADEMY OF ARTS.
Burlington House, Piccadilly, W.

The annual Summer Exhibition of Sculpture and Paintings (chiefly by British Artists), not previously exhibited elsewhere, is open daily (8 a.m. to 7 p.m.) until the end of July. Admission, 1s.

The Gibson and Diploma Galleries (Sculpture and Pictures) are open free to the public, daily, from 11 a.m. to 4 p.m.

VICTORIA AND ALBERT MUSEUM.
South Kensington.

The Collections of Ornamental and Decorative Art are displayed in the fine new buildings, the main entrance to which is in Brompton Road. There is a side entrance in Exhibition Road. The Indian Collection is in a building on the opposite side of Exhibition Road and adjoins the University Buildings.

Open free on Monday, Thursday and Saturday, from 10 a.m. to 10 p.m., and on Sunday from 2 to 7 p.m.; on Tuesday, Wednesday and Friday (Students' days), open from 10 a.m. to 6 p.m. Admission 6d.

Access.—As to University.

BETHNAL GREEN MUSEUM.

This is a branch of the Victoria and Albert Museum, and has collections of pictures, art objects, animal products, etc. It is open free, daily : on Mondays, Thursdays, and Saturdays, from 10 to 10 ; Tuesdays, Wednesdays and Fridays, from 10 to 4, 5, or 6, according to the season ; Sundays, from 2 till dusk. Nearest Railway Station, Cambridge Heath (Great Eastern).

SOANE MUSEUM.

This valuable and interesting collection at 13, Lincoln's Inn Fields, was a bequest of Sir John Soane ; it comprises antique sculpture, models of Temples, a magnificent Sarcophagus of alabaster, which contained the mummy of Sethos, the father of Rameses II., some valuable pictures, and many curios. The pictures include the *Rake's Progress*, by Hogarth, well-known by engraving, the *Election*, by the same artist, a fine *Canaletto*, and three very fine *Turners*—*Admiral Van Tromp's Barge*, *Kirkstall Abbey*, and the great water-colour of the *Vale of Aosta*. The museum is open free on Tuesdays, Wednesdays, Thursdays and Fridays, 10.30 to 5 from March to August. For permission to view on other days, application should be made personally or by letter to the Curator, Mr. W. L. Spiers.

Access.—Temple (D.), Holborn (P.), or by Omnibus along Oxford Street or Strand.

PUBLIC BUILDINGS.

HOUSES OF PARLIAMENT.

The original Royal Palace of Westminster was built by William Rufus, and Westminster Hall formed part of it ; partially destroyed by fire in 1291, it was reconstructed between 1395 and 1399. The exterior has been well restored in accordance with the original design. The Hall in which the body of His late Majesty Edward VII. lay in state is one of the largest in Europe not supported by pillars, and has a fine oak roof. It was thoroughly repaired in 1820, previous to the coronation of George IV.

The remainder of the old palace was destroyed by fire in 1835, and the great Palace of Westminster now standing was erected in 1840-67 from Sir Charles Barry's designs. It is one of the finest Gothic buildings erected in modern times, and is almost certainly the largest, for it covers an area of 8 acres, and contains 500 apartments. The river frontage is imposing, and the terrace, which is 240 feet long, is a favourite resort of Members and their friends, on summer afternoons, at the hour of tea.

The Clock Tower, at the eastern end, is 40 feet square and 320 feet high. The dial of the clock is 30 feet in diameter, and "Big Ben," which strikes the hour, weighs more than 8 tons. The quarters are chimed by eight bells. When the House is sitting the fact is made plain to those outside by a flag flying from the Victoria Tower, or a light burning in the Clock Tower. The Victoria Tower, above the Royal entrance, is said to be the tallest and largest square tower in the world—336 feet high and 75 feet square.

The chambers in which the Houses of Lords and Commons meet are open to visitors on Saturdays—unless either House is sitting—from 10 to 4. Tickets of admission are obtained near the Victoria Tower, House of Lords, on the days above-mentioned, from 10 a.m. to 3.30 p.m. Admission to the Strangers' Gallery of the House of Commons, during session, by a Member's order. A Peer's order is necessary for admission to the Strangers' Gallery of the House of Lords, while the House is sitting.

THE TOWER OF LONDON.

This is of as much historic interest as any building in the country. The White Tower was built by William the Conqueror; but long before that the site was occupied by a Roman fortification; walls and a moat afterwards surrounded it, and the present fortifications were constructed by Henry III. It has always been, and still is, a fortress, and in addition a Royal residence from the time of the Conqueror to Charles II. After the Middle Ages the monarchs lived there as little as possible, and finally lodged there only the day previous to the Coronation, Charles II. being the last Sovereign to observe this custom. As a State prison it is chiefly impressed upon us. During the Civil Wars of the Roses, in the fifteenth century, many were in captivity, and later, when persecution was rife on religious grounds, Sir Thomas More and Bishop Fisher were prisoners; two Queens of Henry VIII.—Anne Boleyn and Catherine Howard—Lady Jane Grey and her husband, Cranmer, Sir Walter Raleigh, and other exalted personages were kept in confinement within its walls. In the White Tower the abdication of Richard II. in favour of Henry IV. took place; and there, under a staircase, were found the bones of the two sons of Edward IV., said to have been smothered by order of Richard III. The Beauchamp Tower, where many prisoners passed their weary lives, has numerous inscriptions cut in the walls. State prisoners were taken through the Traitor's Gate, the principal entrance from the river, and many never went out again, but met their deaths at the hands of the executioner, and were buried in the Chapel of "St. Peter ad Vincula." The site of the scaffold is marked on the grounds outside the Chapel, and railed in by the late Queen.

There is a fine collection of armour in the White Tower, and the Regalia and Crown Jewels are exhibited in the Wakefield Tower; these include St. Edward's Crown, used at the coronation of all our Kings and Queens since Charles II.

The times of admission to the Tower are 10 to 6 (or 4 in winter); Mondays and Saturdays free; on other days admission to the Armoury 6d., and 6d. to the Regalia Room, from 10 to 4. The Yeomen of the Guard, known as Beefeaters more generally, have charge of the Tower.

Access.—Mark Lane (Underground, D. or M.). Omnibuses to London Bridge from the City pass Eastcheap, which is an easy distance from the Tower. Ticket-office and entrance at Lion's Gate, at the foot of Great Tower Hill.

THE GUILDHALL, CITY OF LONDON.

The Guildhall, in which, by the courtesy of the Lord Mayor and Corporation, the Annual Representative Meeting of the British Medical Association is being held, is comprised of several buildings; the Hall of the City Corporation was originally built in the fifteenth century, but was greatly damaged in the Great Fire of 1666; it was restored and a new frontage built, but the porch is part of the original building. The present roof was designed by Sir Horace Jones, the City Architect, in 1864, taking the place of a flat roof, intended as a temporary one, but which remained nearly two hundred years. The Hall is used for municipal business, the Election of the Lord Mayor, and public meetings. The Freedom of the City is here presented to celebrated men. The two gigantic figures—Gog and Magog—date from 1708, having replaced two older figures, carried in the procession of the Lord Mayor. The Aldermen's Room and the Council Chamber adjoin, the latter designed by Sir Horace Jones, and built in 1885. Meetings of the Court of Common Council are held fortnightly, presided over by the Lord Mayor, and thereby much important work is carried on in connection with the management of the streets, etc. The Corporation owns all the markets in the City; is responsible for all vessels and food supply entering the Port of London; the City bridges; large schools for boys and girls; open spaces purchased for the public, around London; an Academy of Music; the licensing of restaurants and public-houses; the Inspection of Weights and Measures; the City Police, etc.

The Public Library, which is extensive and well catalogued, is open every week-day from 10 a.m. to 8 p.m., except Saturday, when it is closed at 6 p.m.

The Museum has many ancient objects of interest connected with

London, and is open every week-day, 10 a.m. to 5 p.m. The Picture Gallery is open on week-days, 10 a.m. to 5 p.m. ; Sundays, 3 p.m. to 8 p.m.

Access.—The Guildhall is in Gresham Street, at the top of King Street, Cheapside. Omnibuses going to the Bank pass near. The Bank Station, the Mansion House Station (D. and M.), and Cannon Street Station (South Eastern Railway), are the most convenient.

THE GENERAL POST OFFICE.

The chief office is at St. Martin's-le-Grand, London, E.C. It forms an imposing block of buildings ; the older part was built in 1829, but great additions have been made. Arrangements will be made to enable members to visit the General Post Office.

CHARTERHOUSE.

The name Charterhouse is a corruption of Chartreuse, so called from the Carthusian monastery founded in 1371. At its dissolution it passed into lay hands, and was eventually purchased by a London merchant named Thomas Sutton, for £13,000, to be converted into a hospital for eighty poor gentlemen and the free education of forty boys. He died the same year and was buried in the Chapel, where is his superb tomb. The Chapel comprises a part of the original building, but was partially reconstructed in 1512, and again altered in 1612. The Great Chamber, or old Governors' Room, is most beautiful, and Charterhouse is one of the finest remnants of Old London.

Many distinguished men received their education at the school, which has been removed to Godalming, Surrey. The Merchant Taylors' Company, which has an education foundation of high repute, now uses the buildings for its day school.

Charterhouse Street, London, E.C.

PALACES.

ST. JAMES'S PALACE.

This was erected in 1532 by Henry VIII., and added to by Charles I. It was the chief London residence of the English Kings, from George I. to George IV. Queen Mary died here in 1558, and Charles I. the night before his execution slept at the Palace, from whence he walked through the Mall to Whitehall.

A fire destroyed the eastern wing in 1809, and the old gateway towards St. James's Street, the Chapel Royal, and the Old Presence Chamber are nearly all that remains of the original Palace. The

King holds his Levees here. Services are conducted in the Chapel Royal on Sundays at 10 a.m., 12 (noon), and 5.30 p.m. A limited number of strangers are admitted to the services at noon and 5.30 p.m., by tickets obtained from the Lord Chamberlain; for the 10 o'clock service no ticket is required.

The British Court is still officially known as the "Court of St James," although the Palace is no longer the actual residence of the King.

Access.—Dover Street Station (P.), or St. James's Park (D.), or Piccadilly omnibuses.

BUCKINGHAM PALACE.

Buckingham Palace, the town residence of His Majesty the King, at the west end of St. James's Park, stands on the site of Buckingham House, built in 1703, and bought by George III. in 1761. He gave orders for it to be rebuilt, but it remained empty until 1837, when Queen Victoria occupied it; since then it has continued to be the London residence of the Sovereign. Permission is only given in exceptional cases to view the interior of the Palace; but the Royal Mews may be seen by applying to the Master of the Horse for an order. The State Coach, designed in 1762 for George III., cost nearly £7,000.

The Guard is changed every morning at 10.45, when the King or Queen is in residence.

In the Throne Room, an apartment of great length, the Sovereign receives addresses in State and holds meetings of the Privy Council; the "Picture Gallery" forms a corridor, and is 180 ft. by 20 ft.; the State Ball Room is 100 ft. long and 60 ft. broad.

KENSINGTON PALACE.

Kensington Palace, which was the town residence of the Monarch during the reigns of William and Mary and Queen Anne, stands at the western side of Kensington Gardens. It was the birth-place of Queen Victoria, who there received the news of her Accession to the Throne. It was the birth-place also of her present Majesty Queen Mary. Princess Louise and her husband, the Duke of Argyll, reside here, and Princess Henry of Battenberg also has a suite of apartments. The State Rooms are open to the public, and contain pictures removed from Hampton Court Palace, and many things of interest belonging to the late Queen Victoria. The Orangery, detached from the Palace, has some fine carvings by Grinling Gibbons.

Open to the public, free, on week-days (except Wednesday), from 10 a.m. to 6 p.m.; Sundays, 2 to 6 p.m.

Access.—High Street, Kensington, Station (D. and M.), or by Hammersmith omnibuses from Piccadilly.

HAMPTON COURT PALACE.

This beautiful Palace on the banks of the Thames, fifteen miles from London, was partly built by Cardinal Wolsey, and in 1526 presented to Henry VIII., who added to it and passed a good deal of his time at it. Here Edward VI. was born, and Jane Seymour died; King Henry was married here to Katherine Parr, his sixth wife. William III. considerably altered and enlarged the Palace, but it has not been used as a Royal residence since the reign of George II. William also had the gardens and park laid out; these are open to the public daily, until dusk. The State Apartments, designed by Sir Christopher Wren for William III., contain pictures of the Italian (chiefly the Venetian) school, portraits by Lely and Kneller, the distemper drawings of Mantegna, and many tapestries.

The Palace is open to the public free, daily (except Friday and Christmas Day), from 10 to 4. Sundays from 2 p.m.

The Gardens are famous for their vine and maze, and immediately beyond them is Bushey Park, with its avenues of chestnut trees.

Access. — Frequent trains from Waterloo Station (L. and S.W.R.) to Hampton Court Station. Electric trams from Shepherd's Bush (C.), and from Hammersmith (D. and M. and P.).

WINDSOR CASTLE.

Windsor Castle, a stronghold of William I., and since Edward III. the chief residence of the reigning monarch, stands high above the river Thames, and dominates the Royal borough of Windsor. Its great Round Tower and massive north-eastern shoulder is a landmark, seen from many parts of the Home Counties. Edward the Confessor presented the estate to the Monks of Westminster Abbey. It was purchased from them by William I., who erected the first Castle; it was almost entirely rebuilt by William of Wykeham for Edward III., and nearly every succeeding sovereign has added to or altered it.

The three main divisions of the Castle comprise:—

1. The Lower Ward, which with its three towers, the Bell Tower, the Garter Tower, and the Salisbury Tower, dominates the town from the top of Castle Hill, contains St. George's Chapel, the Albert Memorial Chapel, the Horse-shoe Cloisters, the residences of the Knights of Windsor, and those of the canons.

2. The Round Tower, commanding a view over the Thames valley, embracing, it is said, twelve counties.

3. The Upper Ward, with the State Apartments, the King's private apartments, and the South Wing where Royal guests are accommodated.

St. George's Chapel, within the precincts, was constructed by Edward IV., on the site of an earlier chapel; the ornate choir contains the stalls, and above them the banners of the Knights of the Garter. There is a beautiful monument to Princess Charlotte, in one of the minor Chapels. The Albert Chapel, originally built by Henry VII., was acquired by Cardinal Wolsey, and was once known as Wolsey's Tombhouse. It was restored by Queen Victoria as a memorial of the Prince Consort. The walls are entirely of marble, with mosaics representing scriptural subjects, and panels with portraits of their children.

The State Apartments contain a collection of pictures, china, tapestry, and furniture. The Terrace, extending round three sides of the Upper Ward, commands a magnificent view.

The Royal Mausoleum at Frogmore is in the Home Park; there the Prince Consort and Queen Victoria, and their son His late Majesty Edward VII., are buried.

Windsor Park is very extensive, the Long Walk measures three miles, and a beautiful excursion may be made on foot or in a carriage to Virginia Water, a large artificial lake, where an hotel and a railway station (infrequent trains to Waterloo) will be found.

The Upper and Lower Wards, the Round Tower, and the Northern Terrace are open to the public daily. St. George's Chapel is open to the public every day, except Fridays and Holy Days, from 12.30 to 4. The State Apartments and all principal parts of the Castle may be seen (when the Court is absent) on Tuesdays, Wednesdays, Saturdays and Bank Holidays, from 11 to 5. Tickets can be procured at the Lord Chamberlain's Office at the Castle. The Eastern Terrace is open on Sundays only, when the Court is absent.

LAMBETH PALACE.

For nearly seven centuries Lambeth Palace, on the Lambeth Embankment, where the Thames is crossed by Lambeth Bridge, has been the London residence of the Archbishops of Canterbury; the part actually occupied by the Archbishop was rebuilt by Archbishop Howley in 1834. The most interesting portions of the older building are the Gatehouse; the Lollards' Tower, in which the followers of Wycliffe were imprisoned; the Chapel, built in 1245 by Archbishop Boniface (the roof is modern); the Great Hall, and the Guard Chamber, with portraits of Archbishops. Ten acres of the grounds are lent to the London County Council, and maintained for the public under the name of Archbishop's Park.

Admission by special permit from the Archbishop's Chaplain. Library open week-days, except Saturdays, 10 to 5.

Access.—By tram from Westminster Bridge (D.).

CATHEDRALS, ABBEYS AND CHURCHES.

ST. PAUL'S CATHEDRAL.

The Metropolitan Cathedral has stood upon the same site since the early days of Christianity in England. The earliest building of which we have authentic information, the Church of St. Paul, founded in 610 by King Ethelbert, was destroyed by fire in 961, and its successor suffered the same fate in 1087. It was rebuilt on a large scale in the Norman style, and finally completed in 1315 by the erection of a tower and spire. It was damaged by fire in 1561, and for a time was left in a state of dilapidation, but in the reign of Charles I. it was partially restored, and, the Civil War intervening, was not wholly finished when the Great Fire of 1666 completely destroyed it.

The present Cathedral, built from the designs of Sir Christopher Wren—1675-1697—of Portland stone, is in the form of a Latin Cross. The west front of the Cathedral has a double portico of Corinthian pillars, with two campanile towers, and statues of the four Evangelists; between the towers is a bas-relief of the conversion of St. Paul, and above statues of SS. Paul, Peter and James. One tower contains a peal of twelve bells and the other "Great Paul" which weighs over 16 tons. The view from the Golden Gallery, above the Dome, on a fine day commands the greater part of London.

The interior is imposing in its simple grandeur and symmetry. The paintings in the dome, representing scenes in the life of St. Paul, are by Sir James Thornhill. The marble reredos, and the mosaics in the choir and the dome, have given a fitting touch to the whole.

The apse behind the reredos has been converted into a Chapel in memory of Dean Liddon, to whom there is a monument. The South-West Chapel is set apart for the Order of St. Michael and St. George. A stained-glass window in the South Transept is a thank-offering from the late Queen Victoria, for the recovery of her eldest son, in 1872.

St. Paul's, from a national point of view, will always command our interest, as in it are buried many of our illustrious men; Nelson and Wellington, Sir Christopher Wren, and some of our great artists—Sir Thomas Lawrence, Sir Joshua Reynolds, Turner, Sir Edwin Landseer, Lord Leighton, and Sir John Millais.

The Library (entrance at the south aisle) contains 12,000 volumes; from thence a staircase leads to the Great Bell, which strikes the hours, and Great Paul. Another flight of stairs leads to the Whispering Gallery, passing round the inside of the dome. The circular side of the dome transmits the sound so well that a whisper uttered on one side can be heard on the other.

The week-day services are at 8 a.m., 10 a.m. (choral), 1.15 p.m., 4 p.m. (choral), and 7 p.m. Sunday services, 8 a.m., 10.30 a.m. (choral), 3.15 p.m. (choral), and 7 p.m. (choral).

Admission week-days, 9 to 5, Nave and Transepts free; to the Choir, generally from 11 a.m. to 3 p.m.; to the Library, Clock, and Whispering Gallery, 6d.; to the Crypt, 6d.; to Golden Gallery and Ball, 1s. (week-days, 1 to 3 p.m.). Tickets and Guide Books can be obtained at the South Transept.

Access.—Mansion House or Blackfriars (D.), Farringdon Street (M.), Ludgate Hill Post Office (C.), ; omnibus by Oxford Street and Holborn to the Post Office, or from Trafalgar Square by the Strand and Fleet Street, passing the Cathedral.

WESTMINSTER ABBEY.

There is scarcely any building in England that can compare with Westminster Abbey in historical interest. It is the burial-place of her great men and the scene of the Coronation of her Sovereigns. A chapel dedicated to St. Peter was built here by Sebert, King of the Saxons, in 616. An Abbey was erected by Edward the Confessor, whose body was laid to rest a few days after its consecration in 1065, and whose shrine, once enriched with jewels, still exists. His burial there led to the Abbey becoming the burial-place of our Sovereigns for many generations, but Windsor is now the scene of their interment. Of Edward the Confessor's Church there remains but the Pyx House, to the south of the Abbey, the substructure of the Dormitory, and the south side of the Cloisters. Henry III. commenced to rebuild the church in 1220, and the main part existing now dates from that period. He erected the Choir and Transepts and a Lady Chapel, which was taken down by Henry VII. to make way for the very beautiful Chapel which bears his name, where he and his Queen, Elizabeth, are buried. He also completed the Nave in the Transition style, and practically finished the work which various Kings had carried on since Henry III.

The Western Towers were planned and begun by Sir Christopher Wren. The church is built in the form of a Latin cross; the architecture of the nave, choir and transepts being Early English. In the Choir, and immediately before the Altar, is the spot where the Kings and Queens have been crowned since 1066. The Coronation Chair is to be seen in Edward the Confessor's Chapel. The beautiful modern Reredos and old mosaics in the Choir should be specially noticed; Henry VII.'s Chapel with its famous roof, the imposing tomb of the founder and other royal personages, is a remarkable specimen of Gothic architecture in its most ornate stage; it contains the stalls of the Knights of the Bath. Poets' Corner (in the south Transept) is the resting-place of many renowned poets.

dramatists, historians and statesmen—and there is the well-known monument to Shakespeare, although he is buried at Stratford-on-Avon. The Cloisters, between the south side of the Nave and the south Transept date from the eleventh to the fourteenth century, and may be entered either from the south aisle or from Dean's Yard. From the east walk of the Cloisters the Chapter-House is approached through an ancient and beautiful doorway; it was built in 1250 on the site of an earlier one. The House of Commons met there from 1265 to 1547, when it assembled in the Chapel of St. Stephen, Palace of Westminster. When the monasteries were dissolved by Henry VIII., it passed into the possession of the Crown, and became the depository of public records until 1865, when they were removed to the new Record Office. Afterwards it was restored. The great charter of Edward the Confessor, and various documents relating to the Abbey, are preserved here. The windows representing incidents in the history of the Abbey are a memorial to the late Dean Stanley. The Chapel of the Pyx or ancient Royal Treasury is shown only by special permission. The regalia were kept here until their removal to the Tower. The pyx or box containing the standard pieces of gold and silver was taken to the Mint.

The Jerusalem Chamber has rich frescoes and old stained glass, and is hung with tapestries. It was the scene of Henry IV.'s death, who was suddenly seized with illness at the Abbey.

The Refectory or College Hall is now used by the Westminster boys as a dining-hall. Near by is the deanery, formerly the Abbot's house. The old dormitory is now partly the Chapter Library, and partly occupied by a schoolroom of Westminster School, refounded by Queen Elizabeth in 1560. Ben Jonson, Cowper, Sir Christopher Wren, George Herbert, and others of renown were educated here.

The nave and aisles of the Abbey are open free to the public on week-days until 6 p.m. The Chapels are free on Mondays and Tuesdays, 6d. being charged on other days.

Services on Sundays at 8 p.m., 10 a.m., 3 p.m., and occasionally at 7 p.m.; week-days, 8.30 a.m. (except on certain holy days) and 9 a.m. Tickets for seats in the Choir on Sundays may be obtained on application by letter to the Dean or Canon in residence. Ticket holders should be at the Abbey before the service begins, and ask the Verger to direct them to their places.

ST. MARGARET'S, WESTMINSTER.

St. Margaret's Church was erected in the time of Edward I. on the site of one built in 1064 by Edward the Confessor. It was greatly improved in the reign of Edward IV. The stained-glass window at the east end, representing the Crucifixion, has gone through various vicissitudes. At the time of the Commonwealth it

was hidden, and at length purchased in 1758 by the Churchwardens of St. Margaret's for £400. William Caxton, whose printing-press was set up in the Almshouse, formerly near the west front of the Abbey, was buried in the church in 1491. Sir Walter Raleigh was buried in the chancel. He was executed in front of the Palace of Westminster, 1618. There is a brass memorial to him in the church, on the right of the door-way; there is also a fine window in the west, placed there by Americans as a memorial to him. It has portraits of Sir Walter and other famous men of his time, as well as representative scenes connected with his life and the colonisation of America. Mr. J. Russell Lowell wrote the inscription. Among the many interesting memorials, the window erected by Mr. G. W. Childs in the north aisle to John Milton should be noticed; his banns of marriage are entered in the parish register, and his second wife and infant child are buried in the church.

Until 1858 the Members of the House of Commons used to attend the church four times a year in State, according to an order in the Prayer Book of those days. At the east end of the south aisle is a memorial window to William Caxton, erected by printers in 1882.

The Church is close to Westminster Abbey. Open daily from 10 to 1, and 2 to 4 p.m. (Saturday excepted). The services on Sundays are at 11 a.m. and 7 p.m.

SOUTHWARK CATHEDRAL.

The Cathedral Church of St. Saviour is on the site of the Church of the Priory of St. Mary Overy built about 1106; it was destroyed by fire early in the thirteenth century, very little of the material remaining to be combined with the Early English erection which followed. The beautiful Choir, Lady Chapel, and transepts, retain their original form, but the nave was rebuilt in 1890-96. The series of memorial windows embraces the names of Chaucer, Bunyan, Francis Beaumont, John Fletcher and Philip Massinger, who died in the 17th century. Lawrence Fletcher, associated with Shakespeare and Burbage as lessee of the Globe Theatre, and of Shakespeare himself who was a parishioner and worshipped in the church.

Access.—Southwark Cathedral is opposite the approach to London Bridge Railway Station, and is open from 7.30 a.m. to dusk. Service on week-days at 5 p.m., and on Sunday at 8, 10.30 and 11 a.m., and 6.30 p.m.

ST. BARTHOLOMEW-THE-GREAT.

The oldest of the City Churches of which any of the original fabric remains was founded with the Priory and the adjacent Hospital of St. Bartholomew by Rahere in 1123. Rahere is said to

have been assisted in his architectural work by Alfune, who had built St. Giles', Cripplegate, about 1090. Rahere became the first Prior, ruling over a sub-Prior and twelve Canons regular of the rule of St. Augustine. Rahere died in 1144, and his tomb with a painted alabaster figure still occupies its original position on the north side of the Sanctuary. The present church represents little more than the choir of the original building. It is well worth a visit. The Lady Chapel with the crypt beneath it dates from about 1410, and in the first part of the next century Prior Bolton [1505-1532] inserted the oriel window on the southern side of the choir-triforium and the doorway in the south ambulatory, both of which bear his sculptured *rebus*, a bolt or crossbow arrow piercing a tun. The entire property was surrendered to Henry VIII. in 1539, when the nave was at once pulled down. The choir and Lady Chapel fell into complete disrepair but they have been lately restored in a most judicious manner by Sir Aston Webb, R.A. The registers date from 1616, and show an average death rate of ten in each month till the year 1665, when the plague brought them up to eighteen a day. William Hogarth, the painter, was born in Bartholomew Close 10th November, 1697, and was baptised in the church on 28th November in the same year. There is an excellent account of the church by Mr. George Worley in Bell's Cathedral Series, 1908.

The Church of St. Bartholomew-the-Less is within the precincts of St. Bartholomew's Hospital, which has always had a separate existence from the Priory. Notice in passing from one church to the other the Memorial to the Martyrs burned in Smithfield during the reign of Queen Mary. It is in the outer wall of the hospital buildings facing Smithfield.

ST. GILES, CRIPPLEGATE.

The first church was erected about 1090 by Alfune, who afterwards became the first Hospitaller or Proctor of St. Bartholomew's Hospital. Parts of the basement of the present tower belonged to the original church. The Norman church was replaced late in the 14th century by the present building. It was partially burnt in 1545 when many interesting monuments of the older English families were destroyed. William Bullein, the physician, was buried here in 1576; Sir Martin Frobisher, the navigator, in 1594; (John Foxe who wrote the Book of Martyrs, in 1580), and John Milton 12th November, 1674. John Bunyan, author of the "Pilgrim's Progress," and Daniel Defoe, who wrote "Robinson Crusoe," lived and died in the Parish, and are buried in the burial-ground of Bunhill Fields. On August 22nd, 1620 Oliver Cromwell was married in the church to Elizabeth Bouchier. A statue of Milton, the gift of Sir John Baddeley in 1904, stands outside the church. The pulpit, screen and font cover within are the

work of Grinling Gibbons. The church is in Fore Street, not far from the Aldersgate Street and Moorgate Street stations on the Metropolitan Railway. A bastion of the City wall is visible from the churchyard.

ALL HALLOWS, BARKING.

This Church is so called because it was founded by the nuns of Barking Abbey, whose first Abbess, St. Ethelburga, is represented in the porch. Archbishop Laud was buried here after his execution in 1645, but his body was removed eighteen years later to St. John's College, Oxford. The old brasses are interesting. Great Tower Street, London, E.C.

ST. OLAVE'S, HART STREET,

Derives its name from its dedication to Olaf, a Norwegian King of the eleventh century, who was canonised because he zealously spread Christianity amongst his subjects. It is not known when the earlier Church was built, but in the year 1319 an agreement was made between the Rector and the Crutched Friars.

It is probable that the existing building was erected in the fifteenth century. Samuel Pepys, the writer of the Diary, attended this Church, and it contains the tombs of himself, his wife and his brother. The Samuel Pepys Memorial erected by public subscription was unveiled on 18th March, 1884. The skulls over the gate of the Churchyard, in Seething Lane, are supposed to denote that persons who died of the plague in 1665 are buried here, but the register does not confirm the statement.

The Church is near Fenchurch Street Railway Station, London, E.C. It is open daily from 12.30 to 3 p.m.

THE TEMPLE CHURCH

Is one of the oldest in London. The Round Church is one of four built by the Knights Templar in 1185, and is the only remaining part of the original. The Choir was added in 1240 but the greater part was built in the nineteenth century. In ancient times lawyers used to wait in the Church for clients, near the effigies of Knights Templar. The music at the Temple Church is renowned for its excellence. Under the organ-gallery is a tablet which states that Oliver Goldsmith is buried in the Temple ground. The Church is in Fleet Street, London, E.C. Open on week-days from 10 to 1 and 2 to 4 p.m. (When it is not open between these hours inquiries should be made of the Porter at the top of Inner Temple Lane.).

Admission to the 11 a.m. service on Sunday is by Benchers' order, but the 3 p.m. service is open to the public.

WESTMINSTER CATHEDRAL.

Westminster Cathedral, erected recently for the Roman Catholic diocese, stands on a site close to Victoria Station. It is probably the most important example of the Byzantine style erected in modern times. It is built from the designs of the late Mr. J. F. Bentley, of red brick with Portland stone reliefs; the west front with a large round headed archway and a lofty square campanile is very fine, but is unfortunately screened by the lofty houses in Victoria Street. The interior is of noble proportions but produces a somewhat sombre impression, the decorations of the wall surfaces which will lighten the effect being as yet incomplete. The cathedral is open from 9 a.m. to dusk. On Sundays, Low Mass at 6.30, 7, 8 and 9.15 (with short sermon). Capitular High Mass 10.30. Devotions, Sermon and Benediction, 7.

THE BROMPTON ORATORY.

The Brompton Oratory, the Church of the London Oratorians, is situated in Brompton Road, near the Victoria and Albert Museum. It is the finest modern example in London of the Italian Renaissance style. In front of the west wing is a statue of Cardinal Newman. The Italian walnut-wood choir stalls are most skilfully carved, and coloured marbles enrich the interior. The altar and reredos in the Lady Chapel are most beautiful, and inlaid with precious stones.

The Oratory is open daily from 6.15 a.m. to 12.30 p.m., and from 2.30 to 10 p.m. On Sundays the first Low Mass is at 6.30, also at 7, 8, 9 and 10; High Mass and Sermon, 11: Evening Service and Benediction, 7.

LONDON DOCKS.

The docks of London afford most extensive accommodation. They may be seen free of charge, and are all accessible by tramway, or railway, for about 4d.

St. Katharine's Docks, near The Tower.

London Docks, near Wapping and Shadwell.

Regent's Canal Docks or Limehouse Basin, at Limehouse.

Surrey Commercial Docks, at Rotherhithe, near Thames Tunnel.

West India Docks, at Poplar.

South-West India Docks, Poplar.

Millwall Docks, at Isle of Dogs.

East India Docks, at Blackwall.

Victoria and Albert Docks, Beckton, near North Woolwich.

Tilbury Docks, at Tilbury.

MOTOR CAB TO CARRY TWO PERSONS.

FARES

When fitted with a TAXIMETER recording the fare by a combination of Time and Distance.

NOTE.—This Cab cannot be hired by Time or by Distance separately, but only by the scale recorded by the Taximeter, which is a combination of both.

- (A) Not exceeding One Mile, or for Time not exceeding
Ten Minutes — 8d.
- (B) Exceeding One Mile or Ten Minutes—
- (1) For each Quarter Mile, or time not exceeding
Two and a Half Minutes... .. — 2d.
- (2) For any less Distance or Time — 2d.

EXTRA PAYMENTS.

Luggage—

- For each Bicycle, Child's Mail Cart, or Perambulator — 6d.
- For each other Package carried outside — 2d.

Any complaints respecting defective Taximeters should be at once made to the Public Carriage Office, New Scotland Yard, or at any Police Station. The number of the Cab should always be quoted.

HORSE DRAWN CAB FOR TWO PERSONS.

FARES

When NOT fitted with a Taximeter recording the Fare by a combination of Time and Distance.

If hired and discharged within the Four Mile Circle :—

If by Distance :—

- Not exceeding Two Miles 1s. 0d.
- Exceeding Two Miles ; for each mile or part of a
mile — 6d.

If by Time :—

- For One Hour or less 2s. 6d.

Above One Hour—

- For every Fifteen Minutes of the whole time ... — 8d.
- For any less period — 8d.

If hired without the Four Mile Circle wherever discharged :—

If by Distance :—

Not exceeding One Mile 1s. 6d.

Exceeding One Mile : for each mile or part of a
mile 1s. 0d.

If by Time :—

For One Hour or less 2s. 6d.

Above One Hour—

For every Fifteen Minutes of the whole time ... — 8d.

For any less period — 8d.

If hired within but discharged without the Four Mile Circle :—

If by Distance :—

Not exceeding One Mile 1s. 0d.

Exceeding One Mile—

For each Mile ENDED within Circle — 6d.

For each Mile ENDED without Circle 1s. 0d.

For any part of a Mile over 1s. 0d.

If by Time :—

Payment as if cab hired without Circle.

EXTRA PAYMENTS.

(1) Luggage :—

For each Bicycle, Child's Mail Cart or Perambulator 6d.

For each other package carried outside — 2d.

(Luggage carried on the footboard of a Hansom so that the doors do not close over it, is deemed outside.)

(2) Waiting.—When hired by Distance :—

For every Fifteen Minutes COMPLETED, whether
within or without the Circle — 8d.

NOTE.—If the cab bears a notification the driver is willing to accept SIXPENCE for not exceeding One Mile he cannot demand more.

HACKNEY CARRIAGES.

DISTANCES

Measured by Authority of the Commissioner of Police of the Metropolis.

One Mile is 1,760 Yards.

IMPERIAL INSTITUTE.

To or From

	Miles.	Yards
Albert Road, Regent's Park	3	345
Archway Road, Junction Road	5	1595
Bank of England	4	720
Battersea	1	1563
Battersea Park (S.W. Entrance)	1	1650
Battersea Park	1	1597
Bayswater Road	1	1256
Bayswater Road	1	372
Bedford Square	3	35
Belgrave Square	1	479
Berkeley Square	2	106
Bishopsgate Street	4	1398
Blackfriars Road	3	1070
Bloomsbury Square	3	176
Boltons, The (N.W. Corner)	—	1647
Borough High Street	4	199
Bow Church, Bow Road	7	1246
Brixton Hill, Christchurch Road	5	57
Brixton Road	4	1039
Brunswick Square	3	1133
Bryanstone Square	1	1703
Buckingham Palace Road	1	1693
Buckingham Palace Road	1	1100
Camberwell Green	4	824
Cambridge Circus (Centre)	2	1023
Camden Town	3	1502
Camden Town	4	24
Camden Hill Road	1	263
Camden Hill Square	1	1247
Cavendish Square	2	836
Charing Cross	2	1120
Chelsea Hospital	1	578
Chester Square	1	873
Christ Church, Newgate Street	3	1721

IMPERIAL INSTITUTE.

To or From

Miles. Yards.

RAILWAY STATIONS.

Brondesbury	4	312
Brixton	4	946
Cannon Street	4	614
Charing Cross	2	1336
Clapham Junction (L.B. & S.C.)	2	1714
Clapham Junction (L. & S.W.)	3	204
Dalston Junction... ..	6	378
Dulwich (L.C. & D.)	6	624
Euston	3	1080
Fenchurch Street	4	1487
Finsbury Park (G.N.)	6	769
Hampstead Heath	4	1611
King's Cross	4	32
Liverpool Street	4	1522
London Bridge	4	831
Mansion House	4	261
Moorgate Street	4	1038
Old Kent Road	6	374
Paddington	1	1218
Poplar (N. London)	7	1257
Putney (L. & S. W.)	3	979
St. Pancras	3	1527
St. Paul's	3	1351
Vauxhall	2	1547
Victoria (centre of frontage)	1	1441
Waterloo (L. & S. W.)	3	575
Westbourne Park	2	690
West Brompton	1	610
West Hampstead	4	346
Red Lion Square (St. John's Church)	3	345
Regent's Park	2	1170
Regent Square (St. Peter's Church)	3	1510
Regent Street	2	1153
Russell Square	3	570
St. George's Circus (Southwark)... ..	3	960
St. George's Square	2	469
St. James's Square... ..	2	386
St. John's Wood Park	3	1372
St. Katharine's Docks	5	571
St. Paul's Churchyard	3	1498
Shaftesbury Avenue	2	1361
Shepherd's Bush Green (East End of)	2	717

IMPERIAL INSTITUTE.

To or From

Miles. Yards.

Shoreditch Church	5	207
Sloane Square (S.E. Corner)	1	410
Sloane Street	1	6
Soho Square (S.W. Corner)	2	1166
Somerset House	3	92
Southampton Street	5	—
Southwark Bridge	4	470
Southwark Park	5	1559
Southwick Crescent (Paddington)	1	883
Spitalfields	5	326
Strand	3	508
Surrey Commercial Docks... ..	6	1276
Tavistock Square	3	952

THEATRES, PLACES OF AMUSEMENT, &c.

Adelphi Theatre	2	1408
Agricultural Hall	4	1054
Albert Hall	—	862
Alhambra	2	849
Botanic Gardens	2	1454
British Museum	3	62
Covent Garden Theatre... ..	2	1500
Crystal Palace	8	96
Drury Lane Theatre	2	1641
Exeter Hall	2	1588
Gaiety Theatre	2	1753
Garrick Theatre	2	994
Globe Theatre	3	257
Haymarket Theatre	2	739
Hurlingham Club	2	1349
Imperial Institute	—	—
Kennington Oval	3	666
Lord's Cricket Ground	2	1297
Lyceum Theatre	2	1756
Lytic Theatre	2	608
Madame Tussaud's	2	759
National Gallery	2	1074
Natural History Museum	—	740
Olympia	1	1405
Pavilion Theatre... ..	5	1016
People's Palace	6	1095
Prince of Wales' Theatre	2	596
Princess's Theatre	2	1269

IMPERIAL INSTITUTE.

To or From

Miles. Yards.

THEATRES, &c.

Ranelagh Club, Barn Elms	...	...	...	...	4	707
Royalty Theatre...	...	...	...	...	2	995
St. James's Hall	...	...	...	...	2	396
St. James's Theatre	...	...	...	...	2	229
Shaftesbury Theatre	...	...	...	...	2	899
Standard Theatre	...	...	...	...	5	349
South Kensington Museum	...	...	...	...	—	677
Tower of London	...	...	...	...	4	1517
Zoological Gardens	...	...	...	...	3	872
Tottenham Court Road	...	...	...	...	3	203
Tower Bridge	...	...	...	...	5	378
Vauxhall Bridge	...	...	...	...	2	967
Victoria Park	...	...	...	...	6	858
Walham Green	...	...	...	...	1	1719
Wandsworth Road	...	...	...	...	3	233
Wandsworth Road	...	...	...	...	3	612
Wandsworth Town Hall	...	...	...	...	3	1034
Waterloo Bridge	...	...	...	...	3	552
Westbourne Grove	...	...	...	...	1	1557
Westbourne Terrace	...	...	...	...	1	1423
Westminster Bridge (Pier Steps)...	...	...	...	...	2	1178
Westminster Bridge Road	...	...	...	...	3	347
Whitechapel High Street	...	...	...	...	5	257
Whitehall	...	...	...	...	2	1416
Wimpole Street	...	...	...	...	2	799
" York and Albany "	...	...	...	...	3	1301

INDEX.

	PAGE
Abbeys, Churches and Cathedrals ...	72
All Hallows, Barking ...	77
Apothecaries of London, Society of ...	13
Art Galleries, Picture and Fine ...	63
Association, British Medical ...	32
Asylums, Mental Hospitals and ...	26
Badge, Presidential ...	34
Bethlem Royal Hospital ...	27
Bethnal Green Museum ...	62
Botanic and Zoological Gardens ...	62
Royal Botanic Gardens, Kew ...	62
" " " Regent's Park ...	62
British Medical Association ...	32
" Museum ...	39
" " of Natural History ...	40
Brompton Oratory ...	78
Buckingham Palace ...	69
Cab fares ...	80
Cathedrals, Abbeys and Churches ...	72
All Hallows, Barking ...	77
Brompton Oratory ...	78
St. Bartholomew-the-Great ...	75
St. Giles, Cripplegate ...	76
St. Margaret's, Westminster ...	74
St. Olave's, Hart Street ...	77
St. Paul's Cathedral ...	72
Southwark Cathedral ...	75
Temple Church ...	77
Westminster Abbey ...	73
" Cathedral ...	78
Charing Cross Hospital ...	21
" " " Museum ...	49
Charterhouse ...	68
Churches, Cathedrals, Abbeys and ...	72
College, King's ...	22
" Royal Army Medical ...	29
" University ...	21
Docks, London ...	79
Electric Railways ...	36

	PAGE
Fares, Cab	80
„ (Distances from Imperial Institute)...	82
Fever Hospitals	27
Galleries, Picture and Fine Art	63
General Post Office	68
Geology, Museum of Practical	58
Gordon Museum, Guy's Hospital	51
Guildhall, City of London	67
Guy's Hospital	18
„ „ Gordon Museum	51
Hackney Carriages (Distances from Imperial Institute)...	82
Hampton Court Palace	70
Horse-cab fares	80
Hospitals and Asylums, Mental	26
„ Fever	27
„ Foreign	26
„ Medical Schools and	16
„ Special	25
Houses of Parliament	65
Imperial College of Science and Technology	39
„ Institute	39
Infirmaries, Poor Law	28
Institutes for Research	30
Introduction	7
Kensington Palace	69
Kew Gardens	62
King's College and Hospital	22
Lambeth Palace	71
Libraries, Museums and	32
London Docks	79
„ Hospital	19
„ „ Medical College Museum...	52
„ School of Tropical Medicine	28
„ University of	14
Means of getting about	35
Medical education of Women	23
„ Practice, Regulation of	7
„ Museum of the Annual Meeting	59
„ Schools and Hospitals	16
Charing Cross	21
Guy's	18
King's College	22

	PAGE
Medical Schools and Hospitals (<i>continued</i>) :—	
London	19
Middlesex	20
Royal Free	23
St. Bartholomew's	16
St. George's	18
St. Mary's	22
St. Thomas's	17
University College	21
Westminster	17
Mental Hospitals and Asylums	26
Bethlem Royal Hospital	27
St. Luke's Hospital	27
Middlesex Hospital	20
,, ,, Museum	53
Motor-car fares	80
Museums and Libraries	32
Museums, Principal	39
Bethnal Green	65
British	39
,, Museum of Natural History	40
Charing Cross Hospital	49
Gordon Museum, Guy's Hospital	51
London Hospital Medical College	52
Middlesex Hospital	53
Parkes	59
Practical Geology, Museum of	58
Royal College of Surgeons	43
Royal Free Hospital	55
Royal United Service	59
St. Bartholomew's Hospital	48
St. George's Hospital	50
St. Thomas's Hospital	55
Soane	65
University College and University College Hospital	56
Victoria and Albert	64
National Gallery	63
,, ,, of British Arts (Tate Gallery)	63
,, Portrait Gallery	63
Omnibuses	35
Palaces	68
Buckingham Palace	69
Hampton Court	70








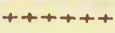



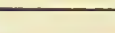
	PAGE
Palaces (<i>continued</i>) :—	
Kensington Palace	69
Lambeth ,,	71
St. James's ,,	68
Windsor Castle	70
Parkes Museum	59
Parliament, Houses of	65
Physic Garden, Chelsea	30
Picture and Fine Art Galleries	63
Bethnal Green Museum	65
National Gallery	63
,, ,, of British Arts (Tate Gallery)	63
,, Portrait Gallery	63
Royal Academy of Arts	64
Soane Museum	65
Victoria and Albert Museum	64
Wallace Collection	64
Poor Law Infirmaries	28
Post-graduate Schools	24
Presidential Badge	34
Principal Museums	39
Public Buildings	65
Charterhouse	68
General Post Office	68
Guildhall, City of London	67
Houses of Parliament	65
Tower of London	66
Railways, Electric	36
Regulation of Medical Practice	7
Research, Institute for	30
Routes, Omnibus	35
Royal Academy of Arts	64
,, Army Medical College	29
,, Botanic Gardens, Kew	62
,, ,, Regent's Park	62
,, Colleges, The	11
,, College of Physicians of London	11
,, ,, Surgeons of England	12
,, College of Surgeons Museum	43
,, Frec Hospital	23
,, ,, Museum	55
,, United Service ,,	59

	PAGE
St. Bartholomew-the-Great	75
St. Bartholomew's Hospital	16
" " " Museum	48
St. George's	18
" " " Museum	50
St. Giles, Cripplegate	76
St. James's Palace	68
St. Luke's Hospital	27
St. Margaret's, Westminster	74
St. Mary's Hospital	22
St. Olave's, Hart Street	77
St. Paul's Cathedral	72
St. Thomas's Hospital	17
" " " Museum	55
Schools and Hospitals, Medical	16
" Post-graduate	24
Soane Museum	65
Societies	31
Society of Apothecaries of London	13
Southwark Cathedral	75
Special Hospitals	25
Tate Gallery	63
Taxi-cab fares	80
Temple Church	77
Tower of London	66
Tropical Medicine, London School of	28
University College and Hospital	21
" " " Museum	56
" of London	14
" " and the Imperial College of Science and Technology	39
Victoria and Albert Museum	64
Wallace Collection	64
Westminster Abbey	73
" Cathedral	78
" Hospital	17
" " Museum	58
" St. Margaret's,	74
Windsor Castle	70
Women, Medical Education of	23
Zoological Gardens	63

LONDON

UNDERGROUND

REFERENCE

BAKERLOO RY.	Shewn Thus	
CENTRAL LONDON RY.	" "	
CITY & SOUTH LONDON RY.	" "	
DISTRICT RAILWAY.	" "	
GREAT NORTHERN & CITY RY.	" "	
HAMPSTEAD RY.	" "	
METROPOLITAN RY.	" "	
PICCADILLY RY.	" "	
LONDON UNITED TRAMS.	" "	
OTHER TRAMWAYS.		
SUBWAY CONNECTIONS.		
OTHER RAILWAYS.		







BRIDGE & Co.,
Printers and Stationers,
92, Chancery Lane, W.C.



